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USAID/TANZANIA WATER RESOURCES INTEGRATION DEVELOPMENT INITIATIVE (WARIDI)

FIRST ANNUAL REPORT (JANUARY – SEPTEMBER 2016)

MARCH 2017
This publication was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech.

PREFACE

Tanzania's health, economy, and food security depend on sustainably managed water resources. However, water scarcity challenges are growing along with the impacts of climate change, while reliable access to safe drinking water and sanitation services is still beyond the reach of far too many people.

To work towards addressing these interconnected water related challenges, USAID's Tanzania Water Resources Integration Development Initiative (WARIDI) promotes integrated water resources management and delivery of services across multiple sectors, with the specific goal of improvement of water resources management, improved service access, biodiversity conservation, and climate change adaptation in Tanzania. Specifically, in select LGAs of the Rufiji and Wami-Ruvu river basins, the project will work to:

- **Component 1 – WASH Services:** Increase utilization of sustainable multiple-use water and sanitation services
- **Component 2 – Governance:** Strengthen governance for sustainable and resilient management of water resources and services under a changing climate
- **Component 3 – Private Sector:** Increase livelihoods through private sector investment opportunities for sustainable water services, agriculture natural resource management, and biodiversity conservation

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ACRONYMS AND ABBREVIATIONS

AAC	Authorized Association Consortium
BDS	Business Development Services
BWB	Basin Water Board
COR	Contract Officer's Representative
COWSO	Community Owned Water Supply Organization
FOCAS	Functional Organizational Capacity-Building Process Framework
GoT	Government of the United Republic of Tanzania
IR	Intermediate Results
IWRM	Integrated Water Resources Management
iWASH	Integrated Water, Sanitation and Hygiene Program
KAP	Knowledge, attitudes and practices
LGA	Local Government Authority
MELP	Monitoring, Evaluation and Learning Plan
MOWI	Ministry of Waters and Irrigation
MUS	Multiple Use Services (water)
NGO	Non-government organization
ODF	Open defecation-free
PAF	Performance Assessment Framework
PES	Payment for Ecosystem Services
PREPARED	Planning for Resilience in East Africa Through Policy, Adaptation, Research, and Economic Development
Q	Quarter
RPA	Rapid Partnership Appraisal
SBCC	Social Behavior Change Communication
STTA	Short-Term Technical Assistance
TMA	Tanzania Meteorological Authority
USAID	United States Agency for International Development
W4L	Water for Life
WARIDI	Water Resources Integration Development Initiative

WASH	Water supply, Sanitation and Hygiene
WCS	Wildlife Conservation Society
WSDP	Water Sector Development Program
WSSA	Water Supply and Sanitation Authorities
WUA	Water Users Association

EXECUTIVE SUMMARY

The Tanzania Water Resources Integration Development Initiative (WARIDI) is an Activity of the United States Agency for International Development (USAID) Mission to Tanzania that seeks to improve health, water resources management, agriculture, climate change adaptation and environmental conservation. This document is the First Annual Report, covering the period December 2015 – September 2016 (as well as subsuming the Third Quarterly Report). The Activity is implemented by Tetra Tech ARD and four subcontractors, Winrock International, SSG Advisors, Water for Life and Iris Group.

WARIDI has four components or results that will emanate primarily from Integrated Water Resources Management work in 20 administrative districts in the Wami-Ruvu and Rufiji River Basins and which seek to achieve the following Intermediate Results (IR):

- IR1 - Increase utilization of sustainable multiple-use water and sanitation services;
- IR2 - Strengthen governance for sustainable and resilient management of water resources and services;
- IR3 - Increase livelihoods through private sector investment opportunities for sustainable water services and resource management; and
- IR-4 Strengthen resilience of coastal livelihoods and ecosystems to climate change.

During Q2 discussions between USAID and the WARIDI team concluded that content of IR-4 will be folded into IR2 and that that climate change resilience work should broaden to include the two focal river basins in their entirety, rather than limiting to coastal areas. This new arrangement will be formalized early in Year 2 through a Task Order modification.

Programmatic Progress

Local Government Authority (LGA) Selection: An approach was adopted to selection of WARIDI districts in which these LGAs applied to WARIDI explaining the "goodness of fit" of their districts to information provided by the program. Five districts were selected based on an objective assessment of the applications by WARIDI and government officials, three from Morogoro Region and two from Iringa Region. Kilolo District was among those selected on merit and is also a focus of USAID's "Iringa Hub" activity. Subsequent intensive engagement with LGA officers is identifying key communities and activities for WARIDI engagement. In Year 2 a further 15 districts will begin to receive Activity support.

IR1: Two assessments were completed on "water services provision" and "sanitation and catalogue promising ongoing initiatives and identify those most promising for WARIDI's use. With respect to multiple-use water services, in consultation with selected LGAs, priority interventions are: rehabilitation and extension of existing schemes; new water supply schemes; and formation and/or strengthening of community-owned water supply organizations. For sanitation in particular, social behavior change campaigns are essential, which will be based upon a knowledge, attitudes and practices survey in selected communities conducted through a grant award during Year 2. A landscape analysis of financing options for water and sanitation was deferred until the beginning of Year 2.

IR2: An important element is establishing current governance capacity and measuring improvements through WARIDI interventions. Mechanisms for baseline assessments of Wami/Ruvu and Rufiji Basin Water Boards institutional capacities was initiated by assessing the Ministry of Water and Irrigation's existing Performance Assessment Framework for Basin Water Boards, and by design of an assessment model for LGAs, that will be adapted for community-based institutions such as Water

Users Associations. A scoping was conducted to assess data management needs in the Wami-Ruvu and Rufiji river basins offices to improve decision-making for water allocation or permitting. Land use plans within the five WARIDI LGAs were enumerated and assessed with a view to promoting more integrated planning approaches at sub-catchment level as a pre-requisite for effective water management.

IR3: WARIDI is committed to private sector partnerships to improve livelihoods, while at the same time promoting the program's other objectives. A Rapid Partnership Appraisal was conducted, which selected 13 from more than 70 potential partnerships for follow-up in Year 2. An analysis of private sector engagement in water supply, sanitation and hygiene identified both opportunities as well as constraints for deeper engagement in WARIDI LGAs, which will inform evolving WARIDI strategies for private sector support. Investigation of potential for payment for ecosystem services schemes led to discussions for a possible grant award, which would support development of a scheme whereby a downstream rice producer will pay upstream community-based land/water managers to improve land and water use in the upper catchment to enhance water flows. A range of potential community livelihood options in target LGAs was reviewed for application alongside water supply and sanitation interventions.

IR4: As noted above, climate change adaptation aspect of WARIDI were expanded from a coastal emphasis to one covering the whole of Wami-Ruvu and Rufiji basins. As a key input new rainfall and temperature trend analyses and projections were initiated for the two basins in a collaboration with four of USAID's East Africa regional partners. The revised study, due for completion in the first quarter of Year 2 will inform future adaptation interventions for WARIDI.

Gender and Youth: In line with USAID's country strategy, WARIDI developed a strategy for gender integration and youth inclusion across all IRs. Key elements of the strategy comprise: increasing access to technical, decision-making and livelihood-promoting resources; engaging pilot communities to rebalance decision-making and income generating norms; build on existing successful practices; identifying local champions and cross-community learning initiatives; and ensure integration and inclusion throughout WARIDI operations and systems to promote learning.

Activity Management

WARIDI successfully established, equipped and staffed two offices in the first half of the year, despite a series of operational constraints and in compliance with Tanzania's bureaucratic systems. Thirty-seven staff were active by year-end and an effective "one-team" harmonized approach established despite staffing from one prime and two subcontractors.

A draft Monitoring, Evaluation and Learning Plan, along with draft Environmental Mitigation and Monitoring, and Water Quality Assurance Plans were submitted for USAID review. A Grant Management Plan was also prepared and approved by USAID. Grant awards will begin in Year 2.

1.0 INTRODUCTION

The Tanzania Water Resources Integration Development Initiative (WARIDI) is an Activity of the United States Agency for International Development (USAID) Mission to Tanzania that seeks to improve health, water resources management, agriculture, climate change adaptation, and environmental conservation. WARIDI contributes to USAID's strategic objective agreements with the Government of the United Republic of Tanzania (GoT).

This document is the First Annual Report of the Activity for the period January to September 2016. Given overlaps, this Annual Report subsumes the Third Quarterly Report (July – September 2016) and the Sixth Monthly Report (September 2016)..

WARIDI, working eventually in 20 administrative local government authorities (LGAs) in the Wami-Ruvu and Rufiji river basins, has three components, or results, that seek to:

- increase utilization of sustainable multiple-use water and sanitation services;
- strengthen governance for sustainable and resilient management of water resources and services taking into account the need to adapt to climate change;
- increase livelihoods through private sector investment opportunities for sustainable water services and resource management.

WARIDI works closely with Tanzania's public and private entities, civil society and USAID partners to improve equitable delivery of water services and enhance integrated water basin management approaches from basin to household level. The Activity also provides grants and capacity-development support to local organizations involved in water resource management activities related to sustainable and healthy livelihoods, to advance awareness, collaborative approaches, and innovative problem solving for local level water challenges. WARIDI strengthens local institutions, builds capacity for improved data-driven decision making, increases livelihood opportunities, and creates climate change adaptation strategies and tools for institutions and communities.

The WARIDI Task Order was awarded to Tetra Tech in December 2015, with an effective start date of 10 December 2015[1], under USAID's Water and Development Indefinite Delivery Indefinite Quantity Contract. To support implementation, Tetra Tech has engaged subcontractors Winrock International, SSG Advisors, Iris Group and Water for Life (W4L). WARIDI follows on and expands upon the preceding Tanzania Integrated Water, Sanitation and Hygiene Program (iWASH). Winrock International was a major partner in iWASH focusing on the water supply, sanitation and hygiene (WASH) as well as private sector aspects.

WARIDI's GoT lead partner is the Ministry of Water and Irrigation (MOWI). All field-based activities take place in the Wami-Ruvu and Rufiji river basins, which are overseen by their respective Basin Boards, and their implementing cadres of staff, and subsidiary catchment, sub-catchment and community-level bodies. More specifically, field activities focus in Local Government Authorities (LGAs) at District level, five of which are engaged in Year 1, with a further 15 either identified or engaged during Year 2.

1.1 PROGRAM STRUCTURE

WARIDI supports USAID's global Water and Development Strategy (2013–2018), Strategic Objective 1, Water for Health. Within USAID/Tanzania's current Cooperating Country Development Strategy, the Activity supports all three of USAID/Tanzania's Development Objectives:

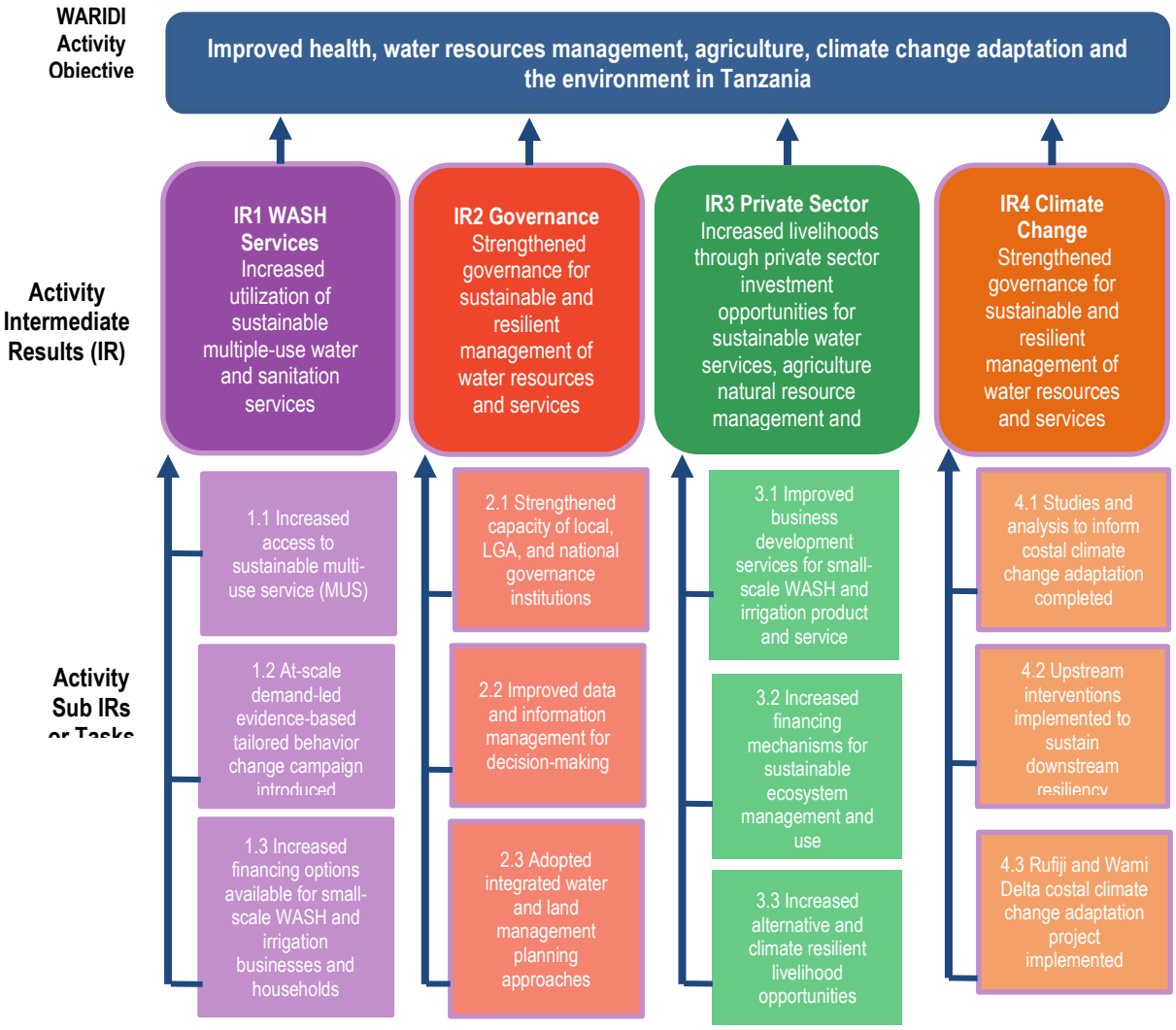
[1] A Task Order modification is under discussion that may modify the Effective Date to 4 January 2016.

1. Tanzanian women and youth empowered.
2. Increased broad-based economic growth sustained.
3. Effective democratic government improved.

In addition, WARIDI contributes to USAID's Global Climate Change Initiative objective for increasing the resilience of people, places, and livelihoods through investments in climate change adaptation; the Feed the Future objectives for improved nutrition, agricultural productivity, and poverty alleviation, especially among women and children; and Global Health Initiative objectives related to child survival.

These broad Mission-wide objectives and programs are in the context of the WARIDI-specific Results Framework illustrated in Figure 1 in which the components or results listed above are characterized as Intermediate Results (IR). Sub-IRs (or Tasks as they are also called in the Task Order and this document) contribute to IRs.

Figure 1: WARIDI Results Framework



As explained in Section 2.5, a Task Order modification in Year 2 will rationalize this Results Framework to fold IR4, Climate Change Adaptation, into IR2, Water Resources Governance and change coastal emphases to a basin wide approach in Wami-Ruvu and Rufiji. These changes were de

facto operational from WARIDI's second quarter (Q2), but the original structure is retained in this report pending completion of the modification.

To further link and contextualize the IRs, for its WARIDI proposal Tetra Tech and its partners proposed the following theory of change:

- **IF** governance for sustainable and resilient management of water resources and services is improved at all levels *(IR 2)*;
- **AND** evidence-based information, planning, and action for climate-resilient water resources management and WASH service delivery is improved *(IR2 and IR4)*;
- **AND** water supply and sanitation service delivery (infrastructure and management systems) is improved to scale up coverage, provide for domestic and productive water needs, and increase sustainability of services *(IR 1)*;
- **AND** diversified, sustainable, and climate-resilient livelihoods through enhanced private sector investment are scaled-up *(IR 3 and IR 4)*;
- **THEN** cross-sectoral and integrated management of water-related resources and services in the Rufiji and Wami-Ruvu Basins will be improved, leading to measurable improvements in human health, livelihoods, and environmental sustainability.

This theory of change provides conceptual linkages between IRs and stresses how they combine to provide improved Integrated Water Resources Management (IWRM). The main assumptions anticipated by this theory of change were articulated in Annex 2 of the First Year Work Plan.

In addition to the project framework described, Tetra Tech is mindful of the USAID funding streams or "earmarks" that are combined in the Task Order, which comprise those allocated to water, agriculture, nutrition and poverty alleviation (Feed the Future), biodiversity and climate change adaptation. While water (Results 1 and 2) and adaptation (Result 4) are largely (though not entirely) attributable to particular Results and agriculture and food security is clearly inferred across all Results, biodiversity interventions are not as clearly defined in the Task Order. Nevertheless, opportunities to enhance biodiversity conservation arise across Results and throughout the basins with their extensive forest and wildlife protected areas and critical wetland habitats mid-stream and at the coast.

At USAID's request, WARIDI developed a biodiversity-specific theory of change for the first Work Plan at the end of Q2, when the Work Plan document was also approved subject to small editorial revisions[2]. This theory of change is preliminary, broad-based and WARIDI-wide as follows.

1. Operational biodiversity objective: Strengthened, sustainable and climate resilient IWRM governance effectively conserves biodiversity in all basin ecosystems.
2. Threat-based interventions: As USAID's Biodiversity Handbook recommends, threat analysis and consequent threat-reducing actions are ideally specific and site-based. As site selection is pending, WARIDI notes recent biodiversity threat (and ultimate cause) analyses for Tanzania in USAID's Environmental Threats and Opportunity Assessment (2012) and the National Biodiversity Strategy and Action Plan (2015) as applicable at Activity level.
3. Provisional biodiversity theory of change:

   If governance for sustainable and climate resilient management of water resources and services is improved at all levels;

   And cross-sectoral management of water and land resources is improved, taking account of ecological interdependence of upper watershed, midstream wetland and coastal ecosystem health;

   And improved economic livelihood development of water and land resources at the same time reduces threats to biodiversity;

[2] After Year 1, but before finalization of this report, USAID indicated that biodiversity earmark funding will no longer apply to WARIDI, but that additional climate change adaptation funds will substitute for this TO change.

Then biodiversity will be more effectively conserved throughout the basins.

When specific interventions are defined that are attributable to biodiversity earmark funding, including those with potential grantees, then as part of that funding allocation, WARIDI will ensure that appropriate objectives, threat analysis and threat reduction strategies, and, where needed, more specific theories of change are developed.

A provisional theory of change for climate change aspects was developed in Q3 (see Section 2.5).

2.0 PROGRESS IN COMPLETING WORK PLAN IRs AND TASKS

This Section describes IR implementation, and the Tasks undertaken in each, during Year 1 relative to what was anticipated in the Work Plan. For reference, Work Plan Task Tables showing inputs/resources applied and expected outputs/deliverables for each Task, including an indication of the lead staff and short-term technical assistance (STTA) are reproduced at the end of each Task narrative.

In the narrative sections for each Task is a brief assessment of what was achieved or underway over the first nine months of the Activity, noting what was not achieved (or its current status, including any change in emphasis based on improved understanding or other circumstances), as well account of what was completed (or underway) followed by a summary of Q3-specific progress.

In reviewing, what was not completed during the Work Plan period, the following overarching constraints are noted as well as a more general discussion of the WARIDI approach to implementation in Section 4.

- Without question, Tetra Tech underestimated the bureaucratic complexity and time needed to establish a large project in Tanzania, with respect to GoT, USAID and internal corporate aspects. Our extensive experience in all neighboring countries was not predictive of the time needed to establish the project presence and become operational. As a result, we could not establish normal operations or staff-up until well into Q2, such that Q3 was the only fully operational quarter (see also Section 3 and Q1/Q2 Reports).
- Although the first Work Plan was submitted according to the agreed schedule in late February, several separate rounds of USAID feedback meant that approval was not forthcoming until the end of Q2. This process did not greatly delay implementation, given the operational constraints, though it meant we did not have a finalized guiding document to share with partners until late in the period.

2.1 IR AND TASK INTEGRATION AND BUY-IN

As noted in Section 1, success of WARIDI depends on ensuring that IRs and funding streams are not "stove-piped" as separately implemented activities. A similar integration process with the numerous stakeholders involved in the various activities is also necessary. Such stakeholders include national ministries and agencies, Basin Boards for Wami-Ruvu and Rufiji and Local Government Authorities (LGAs) at regional, district and sub-district levels across sectors, as well as private sector (from individual farmers to large firms) and civil society entities.

To achieve this integrated perspective, WARIDI obtained initial informal endorsement from national and regional authorities prior to beginning work at administrative district LGA level in the two basins. This higher level "buy in" process began with a two-day "WARIDI Introductory Workshop" held in February 2016 as well as earlier meetings with Ministry of Water and Irrigation (MOWI), Morogoro and Iringa regional administrations and the two Basin Boards. WARIDI felt it imperative to obtain ownership first with the water sector (both WASH and IWRM), and is reaching out to other sectors and institutions as, for example, specific and relevant activities with LGAs are defined, and as different formative studies and analyses are completed. WARIDI also engages with the Ministry of

Health (responsible for sanitation and hygiene) at LGA level and through the national level Technical Working Group system. Also at LGA level representing other sectors, departments of agriculture, livestock, natural resources, environment, planning, gender and youth regularly participate in WARIDI meetings.

2.1.1 LGA ENGAGEMENT

While the project will eventually expand to 20 LGAs, during Year 1, WARIDI planned to begin with a total of five, with three LGA selected from Morogoro Region and two from Iringa Region.

LGA selection criteria and principles for choice were developed jointly with Basin, Regional and WARIDI staff over the course of the first two quarters to help decide which LGAs should be chosen from each of the regions. These criteria include:

- Demand-driven: LGAs, must "apply" to WARIDI's selection process (where the quality of their applications is also assessed) and agree to broad program implementation across IRs to promote IWRM thinking and cost share requirements (financial and/or in-kind), to enhance local ownership and active participation.
- LGAs must show a willingness to co-fund, coordinate activities and work with other partners.
- Needs-based: Selection will reflect national Water Sector Development Program criteria, taking account of equity, inclusivity factors and population numbers.
- Readiness and success factors: We will consider adequate financing; appropriate technology; cross-sectoral coordination; and opportunities to leverage capital, capacity, resources, and institutions.
- Favor areas where USAID is already working to increase impact

The LGA selection process started in Q2 where workshops were organized in each of Morogoro and Iringa Regions to which all respective LGAs were invited. During the workshops the following issues were discussed:

- WARIDI was introduced to all attending LGA councils.
- Information was provided on the LGA selection process as well as the LGA selection criteria.
- The LGA self-application and selection process is initiated through the preparation and submission of applications in an agreed format along with agreed deadlines (27th June Morogoro Region, 15th July Iringa Region)

By the deadlines a total of four LGA applications were received from Morogoro region and five applications from Iringa Region. These applications were reviewed in each of the regions by Basin, Regional and WARIDI staff using agreed weighted criteria and ranked so that LGAs with the highest scores were selected. All LGAs received good ratings and were valid potential candidates for working with WARIDI, but the following five scored highest in their respective regions.

- Morogoro Region: Kilombero, Kilosa, Mvomero.
- Iringa Region: Iringa Rural, Kilolo - Kilolo was pre-selected as an additional LGA, if necessary, as it is a part of USAID's Iringa Hub Activity (see below) but this was not necessary as it scored best in the selection process for Iringa Region.

With all five LGAs selected by the start of Q3 a planning workshop along with representatives from the basins and regions was organized in Mikumi town at the end of August. The workshop discussed priorities and potential opportunities. These most promising ideas were then taken back to each LGA for further discussions.

Visits by project staff to each of the five LGAs started in September using a 'two-speed' approach which will continue in October. This approach involves:

- Reviewing pre-existing LGA projects/priorities with an emphasis on identifying "low hanging fruit" activities that will have a large impact relatively quickly.

- Following a slower process with the LGAs where new activities are identified through a wider network and participatory processes including:
    - Stakeholder mapping (started in September).
    - Stakeholder forums planned for October/November.
    - Further discussions on ow partners can work together after the Stakeholder forums.

WARIDI and USAID's Iringa Hub

USAID initiated an Integrated Iringa Hub Activity in Year 1, focusing coordination of its relevant activities of eight of its Tanzania projects on Kilolo LGA (Iringa Region).

Kilolo was among the successful applicants to WARIDI in the first round of competitive LGA selection. Although no special preference is given to Kilolo, WARIDI will look for specific opportunities to collaborate with USAID (and other) partners across IRs. For example, Kilolo is a pilot for LGA capacity assessment and one grant opportunity under consideration would work with four villages in Kilolo as potential beneficiaries of a payment for environmental services scheme (see Task 3.2), which would cover aspects of IR2 and IR3, and may serve as an entry point for IR1 activities as well.

Visits to the five LGAs subsequently started in late September.

Special consideration was given to the launch of USAID's Iringa Integrated Activity Hub during Year 1. The Hub focuses on coordinated joint implementation of eight existing or pending Activities including WARIDI.

Two quarterly meetings for the Iringa Hub were held in Year 1. Given its broad and cross-sectoral integration approach, WARIDI anticipates working with other USAID partners in Kilolo, in Feed the Future and health projects as well as working closely with the Public Sector Strengthening Systems project in building LGA capacity for more effective service delivery to its constituents.

2.1.2 PARTNERSHIP DEVELOPMENT

WARIDI is aware that partnership development and maintaining good relations with stakeholders is vital for program success. Effective collaborative working arrangements with diverse agencies and projects are essential to avoid duplication of effort and, where possible to fill gaps for mutual benefit. To this end throughout the course of this year WARIDI has worked hard to ensure that it has established good relations with government officials (at all levels and across all sectors), non-government organizations (NGOs), donors and all other partners who are working in the IWRM/WASH spheres nationally and more specifically in the Wami-Ruvu and Rufiji basins. Furthermore, WARIDI understands that the nature of relationships is largely defined by the local systems of the LGAs selected and will therefore be a dynamic process in each LGA. The nature of such relationships also depends to a large degree on opportunities that emerge from engagement with the LGAs selected. Information gathered during the LGA selection process will define the types of linkages needed with other government institutions. Similarly, several donor agencies and their implementing partners have overlapping geographical and technical interests with WARIDI so a commitment to coordination is essential to maximize the collective impact of the investments.

Stakeholder mapping began in September within the initial five LGAs. WARIDI will lead stakeholder mapping workshops in each LGA in Year 2 to help the LGAs better understand what the different actors are doing and to determine potential collaboration opportunities.

In addition to the District mapping workshops, in Q3 WARIDI continued networking to make new partnerships and consolidate older ones. Meetings attended/held included:

- Participation in Africa Water Week and the African Ministers' Council on Water general meeting from 18th-22nd July in Dar es Salaam. The team had an opportunity to meet the USAID delegate to plan a monitoring visit to WARIDI from 26th-28th July.

- Meeting on 4th July 2016 with Fundacion Paraguaya who are working in Iringa and supporting youth especially in school youth through business education and training. They are working with 20 government school in Iringa aiming at imparting entrepreneurial skills to young school youth through formation of business clubs.
- Meetings with the Southern Highlands Participatory Organization in Njombe for insights on pumps, Savings and Credit Cooperative Organizations, water resource systems and point of use treatment facilities. This was part of the study on Water services, Sanitation and Hygiene and privates sector involvement.
- Meeting with ACCRA on tulip filter, Community-Led Urban Environmental Sanitation and Sanitation Safety Planning approaches.
- Meeting with Forest Development Trust and Cheetah in Iringa.
- Edgepoint Company on pre-paid meters for water supply - a food for thought opportunity amongst the possible water supply management options.

WARIDI is an active participant in national-level Technical Working Groups organized by the Water Sector Development Program's (WSDP). Staff attended most of Technical Working Groups meetings for Water, Sanitation and Water Resources Management (including presenting WARIDI to the last of these) during Year 1 which discussed progress, successes and challenges in these sectors in Tanzania through implementation of WSDP. As well as directly contributing to discussions and placing WARIDI in national sector context, we are providing knowledge and lessons from these sessions to our district counterparts who are largely unaware of such development. In this way, national guidelines and emerging best practices are applied at local levels.

2.1.3 SOCIAL BEHAVIOR CHANGE

Success in most community aspects of WARIDI requires behavior change by individuals, households and institutions, whether in sanitation, IWRM, livelihoods or climate change. Good baseline information is critical to understanding the population's current knowledge, attitudes and practices (KAP) regarding these environmental and health (human and ecosystem) services. A well-designed KAP survey provides the insights needed to design and execute effective informational and social behavior change campaigns (SBCC) that are gender and youth sensitive.

In Q3, WARIDI engaged STTA well versed in social survey and Tanzanian context to assist in design of a KAP survey and a Request for Applications to advertise for a local partner to conduct the surveys in WARIDI LGAs. The draft survey instrument will be finalized in Q1 of Year 2. The survey itself will not be conducted until mid-Year 2 because of the need to capture information representative of the specific villages and communities where WARIDI will operate, which will not be selected until Q4. Based on results from this initial KAP survey, WARIDI will determine if these villages are representative of the wider basins and determine whether additional surveys are necessary as new districts are selected.

2.2 INTERMEDIATE RESULT 1, SERVICES: INCREASED UTILIZATION OF SUSTAINABLE MULTIPLE-USE WATER AND SANITATION SERVICES

WARIDI's Multiple-use Services (MUS) approach cuts across IRs 1 and 3 (as referenced below) to:

- Build capacity of LGAs to deliver, facilitate, and oversee water and sanitation service delivery IR 1.1 (linked with IR 2.1; see also Section 2.1.1);

- Build capacity of the private sector to provide services and products (IR 1.3, IR 3.1) to LGAs, Community-Owned Water Supply Organizations (COWSOs), Water Supply and Sanitation Authorities (WSSAs), and other consumers;

- Increase demand for products and services through behavior change through SBCCs and marketing support (IR 1.2, IR 1.3);
- Increase access to financial services and products for consumers, private sector and LGAs (IR 1.3).

Support to interventions in IR1 (and IR3) began in May 2016 with a suite of studies that were completed by end Q3 and submitted to USAID in early Q4.

Each study provides up-to-date information on what is happening in each focal area and is intended for practical use in providing different options for different circumstances. The reports are primarily aimed for use by WARIDI and LGA staff and technicians interested in each of the sectors as well as partners/operators with who WARIDI will work. Further summarized information on two of the studies (as well as links to the drafts) is provided below. The private sector study is presented in Section 3.1.

1. Rapid assessment of water services provision approaches:

- The current state services provision/Access in Tanzania: where it states that levels of water access have remained relatively stagnant over the past 20 years due mainly to poor sustainability of infrastructure and population growth. There are recent significant gains in improving institutional systems but the sector struggles to keep up with population growth and with operation and maintenance of existing systems. This situation is exacerbated by a weak private sector and with the focus that has been mainly on construction with relatively little focus on the "software" aspects of sustained water services.
- National guidelines and policy: describes key pieces of legislation and policy, key achievements and challenges under WSDP I 2007-2014) and the goals of phase II of WSDP.
- Key Actors: large players are listed and these include several donors (including USAID), and hundreds of local and international NGO's and community organizations. There is a growing presence of private sector companies involved as suppliers of goods and services and as contractors to the government, but their penetration into rural areas is slow. Specific reasons for lack of penetration are not clear but relate to bureaucratic obstacles, poor private sector performance in WSDP and lack of entrepreneurial skills in COWSOs.
- Water services provision of approaches including:
    - Different COWSO models the challenges in working with them.
    - Self-supply opportunities with a delivery model that can fill gaps and improve existing water services where they are limited, unreliable or do not meet household requirements for domestic and productive uses.
    - MUS (Multiple Use Water Services), a model used in iWASH.
    - Water Supply and Sanitation Authorities (WSSA).
    - Clustering approaches.
- Strategies that WARIDI is planning to use for implementation including those for:
    - Overall implementation strategy which includes: start-up, working through multiple use water services, livelihoods and continued improvement of sanitation services
    - Self-supply.
    - SBCC.
    - WSSAs.
    - COWSOs.

2. Rapid assessment on sanitation and hygiene provides information and conclusions on the following.

- The current state of sanitation and hygiene in Tanzania including coverage levels: three levels of sanitation access are recognized: no access, basic and improved. Tanzania has high levels of basic sanitation but moving from basic to improved is challenging. According to the national Joint Monitoring Program for Water Supply and Sanitation, 17% of the rural population still practice open defecation (up from 10% in 1990) and only 8% have improved

sanitation facilities compared to 7% in 1990, illustrating the lack of progress despite many years of effort.

- National guidelines and policies: no clear policies or regulations for sanitation and hygiene exist though a national sanitation policy is in prospect. In addition, there are several guidelines and strategies including:
    - National School WASH guideline and toolkits.
    - Open defecation-free (ODF) certification guideline.
    - National strategic plan for School WASH.
    - National sanitation campaign implementation guideline.

WASH-related policies specify the following related to sanitation and hygiene.

Policy/Legislation	Description of the policy/legislation relevant to sanitation and hygiene
National Water Policy 2002 (page 10)	Recognizes the challenge of population growth; indicates that by 2025 Tanzania population estimated to double from 34 million in 2002, having a negative impact on domestic water supply and in sanitation and sewerage services without appropriate measures.
National Water Policy 2002 (page 15)	Recognizes sufficient supply of water and adequate means of sanitation as basic human needs.
National Water Policy 2002 (page 31)	Improvement of health through sanitation and hygiene education Safeguarding health through safe disposal of excreta and solid waste and adequate safe water shall be encouraged by integrating water, sanitation and hygiene education programs.
	Integration of Water Supply & Sanitation and Hygiene Education Diseases associated with lack of safe water and poor hygiene and sanitation are major causes of sickness and death. Lack of access to safe water, sanitation and hygiene education is a root causes of poverty as it is the poor, especially women and children, who suffer most due to poor living conditions, diseases and foregone opportunities. Hygiene education greatly improves the health impact of water and sanitation interventions, whereas providing water alone has minimal impact. To improve the health and conditions of people in the rural areas emphasis will be placed on integrating water supply and sanitation services and hygiene education.
The Water supply and Sanitation Act, 2009	Sec 52-(1) any person who deposits or causes to be deposited any earth, material or liquid in such a manner or place that it may be washed, fall or be carried into the water works commits an offence and shall be liable on conviction to a fine of not exceeding one million shillings or to imprisonment for term not exceeding twelve months or both. This links to open defecation and poor sanitation and hygiene practices.
The Environmental Management Act, 2004 Prohibition of water pollution	109.-(1) Any person who knowingly puts or permits to be put or to fall or to be carried into any stream, so as either singly or in combination with other similar acts of the same nature or interfere with its due flow or pollute its waters, or puts solid refuse of any manufactory or manufacturing process, or puts any rubbish or any other waste or any putrid solid matter into such stream, commits an offence. Reinforces water act provision above
Public health Act, 2009	Sec 85 defines human faeces and urine as “Excreta Waste” and sec 86 requires every house and every public place to provide adequate sanitary accommodation for excreta wastes.

- Sector opportunities and challenges for WARIDI: National Sanitation Campaign-2 is planned to cover the entire country, WARIDI has held discussions to determine how to support the national campaign as well as discussions with the Department for International Development on its pending support. WARIDI contributions will focus on its selected districts, beginning with ODF campaigns working primarily through LGAs and COWSOs.
- Social behavior change: different sanitation and hygienic approaches used in Tanzania are discussed including the use of radio, football, sanitation bazaars, road shows, and community health clubs.
- Different Sanitation Approaches: discussion on sanitation as a business, simplified sewer systems, sanitation marketing and School WASH
- Open Defecation Free: discusses and explains the typical steps required in order to achieve ODF, the different ODF certification levels and different ODF approaches.
- Hygiene: discusses and explains different approaches for improved hygiene including
    - Participatory hygiene and sanitation transformation.
    - Child to child.
    - FIT for school
    - Menstrual hygiene management.

Task 1.1: Access to sustainable use services (MUS) in WASH

Most of Year 1 focused on creating demand and buy-in from the first five LGAs selected for community level implementation. Assessment and prioritization of demands for water by the LGAs began in Q3 by reviewing and sharing plans at the Mikumi Workshop in August/September 2016. Visits to assess LGA priorities were subsequently started in September and principal activities will likely include:

- Support rehabilitation and extension of existing piped schemes.
- Construction of new water supplies (piped schemes and wells).
- Formation (where absent), registration and strengthening of COWSOs.
- Further elaboration on these strategies will take place in Year 2 to develop opportunities for self-supply, Quality Service Improvement Program for WSSA and Irrigation plus opportunities for further elaboration with LGAs.

WARIDI staff, whenever possible, attended the Water Sector Development Program (WSDP – now in phase II) Technical Working Groups 2, 3 and 4 (urban and rural water supply and sanitation, respectively) to keep abreast of relevant developments in Tanzania and to inform on WARIDI's water supply activities. Relevant information from the working groups will be shared with LGAs to keep them up-to-date on water supply issues in Tanzania.

WARIDI submitted a draft Water Quality Assurance Plan in Q3. The Procurement process for water quality testing equipment and reagents for use by the WARIDI water engineers began in Q3.

Task 1.1	Timing	Comments
Inputs		
Creating demand and buy in from initial LGAs	Q1-3	See Section 2.0
Market analysis to scale up WASH see IR 3.1	Q2	Staff plus STTA support
Develop strategy for self-supply	Q1-2	
Develop strategy for WSSA	Q1-2	
Outputs		
Buy in from LGAs through self-selection	Q1-3	
Report on Market Assessment	Q3	See Task 1.3
Strategy for self-supply	Q3	
Strategy for WSSA	Q3	

Task 1.2: At-scale, demand-led, evidence based social behavior change campaign

Decisions on how to carry out the SBCC component of the Activity were initially planned for Q2-3 but were postponed until Q1 in FY2.WARIDI will undertake formative research using a sample KAP survey of communities in the five LGAs initially selected. The survey will include elements related to sanitation and hygiene practices and household water treatment and storage but will also cover elements such as livelihoods, environmental protection and water resources management. The survey will probe gender and age sensitive issues, taking account of the draft WARIDI gender and youth strategy. Based on the findings from both the KAP survey and the rapid assessment of water services provision approaches, WARIDI will develop and implement (beginning in Q2 of FY2) an at-scale SBCC strategy that addresses persistent sanitation and hygiene issues in the two basins.

The schedule presented in the Year 1 Work Plan proved unrealistic, given the WARIDI conclusion that the survey should be conducted in communities (yet to be defined) where specific interventions are planned. Initially, thinking was to have basin-wide surveys, but the cost of large surveys, which sufficiently sampled specific WARIDI interventions, and issues arising around whether any observed changes could be attributed to WARIDI led to this revised approach. Research in sanitation and hygiene practices is discussed in Section 2.1. See also KAP survey discussion in Section 3.1.

Task 1.2	Timing	Comments
Inputs		
Research on sanitation and hygiene practices	Q2	In collaboration with IRIS group
Development of a SBCC Strategy	Q2-3	Staff and STTA
Team inputs on development of promotional materials for implementation of the SBCC strategy	Q3	
Outputs		
Report on Sanitation and Hygiene practices	Q2	Completed
SBCC strategy that can be rolled out in first LGAs selected	Q2-3	
Production of preliminary promotional materials	Q3	

Task 1.3: Financing options for small-scale WASH and MUS, and small-scale agricultural and irrigation businesses and households

This task was planned to start in Q3 with a landscape assessment that is now underway in Q4. WARIDI designed the parameters for the landscape assessment during Q3. The assessment will build on WARIDI's WASH private sector/market analysis (summarized in Section 3.1), which analyzed current and potential demand for WASH, MUS, and small-scale agricultural products/services. The financing landscape assessment will focus on three broad areas:

- A review of financial systems for small and medium size enterprises, including banking and non-banking options, regulatory regimes, availability of financial services for enterprises (particularly social enterprises), and the status of local capital markets.
- An analysis of the costs of "doing business" for small and medium size enterprise owners, including a review of risks and conditions for enterprise development.

Task 1.3	Timing	Comments
Inputs		
Initiate landscape assessment for financing of WASH, small scale agriculture and irrigation businesses	Q3	Staff and STTA; completed early Year 2
Begin linking WASH and small scale agricultural consumers to credit and financing options	Q3	Into Year 2
Outputs		
Report on Landscape assessment	(Q4)	Year 2
Finance strategy for the WARIDI program	(Q4)	

2.3 INTERMEDIATE RESULT 2, GOVERNANCE: STRENGTHENED GOVERNANCE FOR SUSTAINABLE AND RESILIENT MANAGEMENT OF WATER RESOURCES AND SERVICES

The governance framework for IWRM is conceptually robust in terms of devolving responsibilities to the most local institutions that is feasible (Tanzania's National Water Policy of 2002). Nevertheless, the practice is complex and challenging from geographical, inter-sectoral, and local resources and capacity perspectives. For example, within the GoT system, basin catchments overlap local government administrative boundaries and many sectoral ministries and agencies with competing demands need to collaborate at all levels to achieve IWRM goals. In essence, these are governance issues that need support so that management of water resources can be effective. This governance challenge is illustrated by the complex array of interactions depicted below.

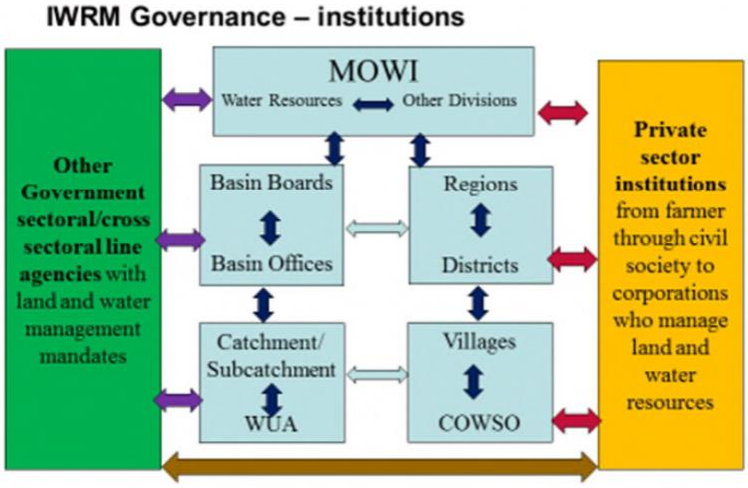


Figure 1: Relationship between water sector institutions, local government administrative arrangements and other sectors
(WUA = Water Users Association; COWSO = Community-Owned Water and Sanitation Organization)

Throughout Year 1 WARIDI interacted with donors, projects, and other efforts supporting the two Basin Offices, such as ongoing and planned work with the United Kingdom Department for International Development in Rufiji and various university collaborations in Wami-Ruvu as well as the concluded support from iWASH.

Task 2.1: Strengthen capacity of river basin, local, LGA and national governance institutions.

LGA Capacity Assessment Tool

The tool takes six major district responsibilities for water resources management from the policy: conflict management, community engagement, regulatory development, resource mobilization and management, monitoring and evaluation, and participation in basin management. Each category is subdivided into several subsidiary competences; for example, for resource mobilization and management: preparation of funding proposals, preparation of tenders and promotion of cost sharing. For each sub-competence, participants (district officers) score from 0 (no capacity) to 4 (full operational capacity) with respect to five elements of capacity development (training, procedures, outreach, decision-making information/tools and enabling policies for enforcement).

A short-term consultant drafted a method, in consultation with Kilosa and Kilolo Districts, to assess baseline capacity within LGAs supported by WARIDI. The tool, described in the box to the left, will be used in Q1 of Year 2 for the first five districts (and subsequently for the other 15 when they are engaged). To maintain focus on WARIDI's core mandate, the tool is designed around LGA responsibilities defined in the national water policy. A self-assessed scoring matrix will be used annually to monitor and LGA

capacity improvements as well as assist in designing capacity-building interventions in areas of weakness. In consultation with MOWI, a similar matrix will be adapted for use on assessing WUAs capacities, but focusing on statutory WUA functions in Year 2.

WARIDI reviewed the BWB assessment tool proposed in the project technical approach and concluded that the Performance Assessment Framework (PAF) currently used by MoWI to evaluate progress in Tanzania's nine Basin Water Boards (BWBs) will be adopted for use by WARIDI. Use of the existing tool in Wami-Ruvu and Rufiji BWBs will avoid duplication and fit with broader government initiatives. MOWI welcomed suggestions that WARIDI can assist in implementing and improving the PAF process. The current PAF results, combining all parameters assessed, has a score for Wami-Ruvu of 44% and 59% for Rufiji confirming WARIDI's findings so far that Rufiji is performing at a higher level than Wami-Ruvu.

Qualitative assessment of capacity gaps of the two basins boards were identified in participatory workshops and meetings (see also Task 2.2) and using extensive documentation at the two Boards. A facilitated joint workshop in Q2 and other meetings individually in Morogoro and Iringa, helped list priority measures which mostly targeted capacities of the two basin boards and their constituent institutions namely; catchment committees, sub-catchment committees and WUAs most of which are weak or non-operational. From this list, activities suitable for WARIDI support and consistent with the Task Order were identified and prioritized for implementation in Year 2, starting from Q4. Basin staff also participated in the climate change workshop in Dar es Salaam described in Section 2.5.

WUAs present in the selected LGAs were identified to link different aspects of WARIDI. An indication of the functional status of the WUAs extracted from basin offices reports, were not adequate to provide a sound baseline on which to base WARIDI plans for capacity development. Consequently, ten WUAs (six in Wami Ruvu and four in Rufiji basins) were identified in the five current WARIDI LGAs where detailed baseline assessment will be carried out starting in Year 2. A scoring matrix similar to the one identified for LGA capacities will be used, but focusing on statutory WUA functions.

Task 2.1	Timing	Comments
Inputs		
Facilitated determination of key priorities (within WARIDI scope) with RBOs	Q2	Expert facilitation STTA
Facilitated determination of baseline capacity for estimation of improvement throughout WARIDI	Q2	Expert facilitation STTA
Begin implementation of priority capacity-building	Q2-Q3	To be determined
Outputs		
Agreed capacity-building baseline, priorities and near-term plan	Q3	Core team, capacity building STTA
Activities from plan commence	Q2-Q3	To be determined

Task 2.2: Improve data and information management for decision making

WARIDI sub-contractor W4L provides the lead technical support for this IR. However, USAID did not approve the subcontract until early in Q3, so it was not possible for the team to mobilize until later in Q3, when a Scoping Mission conducted the "systems assessment" in the Task-table below and gathered other information required to develop a robust Year 2 Work Plan contribution. Given the delay in subcontract approval, one of Tetra Tech's home office information and communications team conducted a preliminary assessment of data management systems at Wami-Ruvu Basin Board. While he found the Basin staff eager and ready to improve data management, it was clear that current systems were limited and that the decision-support software and hardware was not operational. The scoping later confirmed a similar situation in Rufiji.

Broad conclusions of the scoping include:

- An IWRM development plan for Rufiji was recently completed. That for Wami-Ruvu basin will be launched later in 2016 (subject to release of funds by GoT). A large amount of data and information was collected for these studies and the main IWRM issues are identified for these basins.
- A recent World Bank/MOWI assessment of hydromet services in Tanzania by W4L concluded that current services do not have the capacity to meet the data and information needs for IWRM, flood and drought hazard mitigation and for many socio-economic sectors sensitive to weather, climate, and hydrology. These findings were confirmed for Rufiji and Wami-Ruvu Basin Boards.
- Staffing at the Boards is insufficient to support data acquisition and effective decision making, but with guidance and training, hydromet monitoring and data management can be improved. Early in Year 2 a WARIDI human capacity needs assessment will guide WARIDI support for on-the-job and formal training for Basin staff.
- Data acquisition and management is expensive and exceeds the current resources of the Basin Boards. Options to reduce costs were identified for Year 2 implementation.
- MoWI is standardizing software for decision support and data management. While no final decision has been made, MoWI promotes the Nile Basin Decision Support System though it has limitations. Identified limitations of the Nile Basin system include: lack of skilled staff to operate the system and its lack of capabilities for automatic field data acquisition or data checking and validation. As a result, this system is only useful as a database platform rather than for analysis for decision making. WARIDI will assist MOWI in reviewing options alongside a World Bank assessment and later support buy-in and capacity for the two Basin Boards.
- A priority list of equipment needed by the Basin Boards was prepared as well as an assessment of existing equipment that is in need of simple repair or maintenance.

A three-person team from W4L led a scoping in Q3 focused on visiting both Basin Boards, but also met MOWI, the Tanzania Meteorological Authority (TMA) and other central agencies in developing a work program for Years 2 and 3. The team built on its recent World Bank work on hydromet data capacity and needs across all nine Basin Boards in Tanzania and other agencies. Given delay in issuing the sub-contract the assessment phase did not complete the data inventory aspects or the workshop in the Task-table, though representative of the two basins did attend a meeting to verify findings of the scoping and proposals for follow-up in Year 2. The critical World Bank consultancy mentioned in the table below has yet to commence. Given the late start to the W4L subcontract only partial analysis was completed on the data inventory and responsibility mapping with follow-up planned in Year 2.

Task 2.2:	Timing	Comments
Inputs		
Basin Board Data Systems Assessment	Q2-3	W4L, STTA
Workshop: Data Needs, Roles and Responsibilities for Data Collection	Q3	W4L, Staff and STTA
Outputs		
Data Assessment Report	Q3	Efforts need to be linked to World Bank consultancy on financial sustainability business planning for RBOs.
Data Set Inventory (Variables, Time Series, Data Quality & Gaps)	Q3	
Data Workshop Report (Data Needs, Roles & Responsibilities Mapping)	Q4	

Task 2.3: Adopt integrated water and land management planning approaches

While there are no detailed up-to-date district-wide land use management plans in these five LGAs, more than 40% of the villages in these LGAs have prepared village land use plans which are at different stages of implementation. The LGAs have a total of 610 villages. Most of the selected LGAs also have Forest Reserves and National Parks, which have separate management planning processes from which LGAs feel largely disconnected. WARIDI began identifying, collating and reviewing land

use and management plans available in the initial five LGAs selected during Q2 and Q3. This was collected from LGA information submitted earlier to WARIDI together with applications for consideration for inclusion in the WARIDI program. Based on this, various demarcated areas were identified and are presented on Table below.

Reserved/protected Areas in the WARIDI supported LGAs

Item Description				LGA				
				Kilombero	Mvomero	Kilosa	Kilolo	Iringa
Total number of Villages		No		99	130	139	109	133
Total area		Km^2		14,818	7,325	12,394	7,875	20,414
Villages with LUMPs		No		45	68	36	34	76
National Parks		No		1		1		1
		Area Covered	Km^2	1,990		3,230		9,438
Game controlled Areas		No		1		2		
		Area Covered	Km^2	511		480		
Game Reserves		No		1				
		Area Covered	Km^2	54,600				
Wildlife Management Areas (WMAs)		No		1	1			1
		Area Covered	Km^2	511	639			8
Forest Reserves	LGA Controlled	No		15	9		8	22
		Area Covered	Km^2	1,914	136	1,697	593	1674
	Central Govt. Controlled[1]	No			10			
		Area Covered	Km^2		576	978		

Notes: 1= Managed by Tanzania Forests Service.

This information was augmented by visits and discussions with the Authorized Association Consortium (AAC) an umbrella organization bringing together Wildlife Management Areas and with the Tanzania Forests Service. AAC currently works with other conservation projects funded by USAID which works at National level and in northern Tanzania as well as the Ruaha-Katavi Ecosystem project implemented by Wildlife Conservation Society (WCS). AAC is also currently implementing governance capacity building activities to LGAs, village leaders and WMAs.

By end of September 2016, there were three WMAs supported by AAC in three WARIDI-supported LGAs namely:

1. Wami-Mbiki WMA in Mvomero LGA: has both land management plan and business plan but implementation faces challenges including a high level of encroachment and illegal cutting of trees. The WMA needs additional support to operationalize its plan.
2. Mbomipa WMA in Iringa LGA: in the process of reviewing its management plan, with support from WCS. Follow up with WCS will determine possible collaborative roles with WARIDI.
3. Iluma WMA in Kilombero LGA: preparing to develop its management plan supported by the Belgian Technical Cooperation. WARIDI representative will be invited during the stakeholders meeting, which will provide opportunities to emphases the importance of IWRM in these plans

AAC has a consultant conducting an assessment on land use conflicts in its areas of operation (especially in northern, southern and coast wildlife management areas) and has agreed to share the report.

LGAs each have an advisory forum that normally meets to discuss issues related to natural resources management in respective LGAs. The LGA commissioners chair the meetings which are a suitable

forum for BWBs to participate and contribute to discussions on integrated land use and water resources planning and management.

The workshop on plan integration opportunities was not organized pending finalization of the LGAs engagement processes, collection of existing plans and identification of gaps towards integrated land and water resources planning. This concept will be reformulated in Year 2 to identify opportunities for integration in sub-catchments and LGAs where WARIDI supports WUAs. WARIDI recognizes that presently it is not easy to bring together the various relevant sector ministries to discuss modalities and the importance of integration due to various constraints, lack of resources ranking highest among them. However, our findings suggest that LGA-level forums can bring together local governments and central government institutions and agencies to discuss the way forward for integration plans. The proposed workshop is now planned for Year 2 to focus on LGA/WUA coordination, along with national forestry and wildlife agencies where appropriate, in integrated land and water resources planning. An obstacle to BWB participation is the absence of any national agreement for coordination with LGAs, though drafting of such a document is a pending action of MOWI from its annual water sector review.

Task 2.3	Timing	Comments
Inputs		
Collection, collation and review of relevant plans in/overlapping with first phase LGAs	Q2 – Q3	WARIDI staff and STTA
Workshop on plan integration opportunities and constraints	Q3	WARIDI staff and stakeholders
Outputs		
Workshop report on integration options	Q3	Follow-up Year 2

2.4 INTERMEDIATE RESULT 3, PRIVATE SECTOR: INCREASED LIVELIHOODS THROUGH PRIVATE SECTOR INVESTMENT OPPORTUNITIES FOR SUSTAINABLE WATER SERVICES AND WATER RESOURCE MANAGEMENT

Development of private sector and other partnerships is critical not only to Result 3, but to achievement of all results, and realization of WARIDI performance monitoring targets.

Selection of potential partners follows a systematic assessment process described in Task 3.0.

Task 3.0: Partnership Development Launch Activities

Subcontractor SSG provides technical leadership, and backstops its two fulltime WARIDI staff, for identifying and pursuing private sector partnerships to broaden project impact and potentially leverage resources to contribute to achieving WARIDI's targets. The main activity completed during Year 1 was the Rapid Partnership Appraisal (RPA). In preparation for the RPA, the team was first introduced to SSG's conceptual and practical approach to identifying, prioritizing and selecting partnerships for intensive follow-up, as well as an initial scoping of possible partnerships with private sector entities based on previous experience in the region and emerging new possibilities.

Field research for the RPA was conducted in Q3. The numerous contacts made electronically in Q2, were followed up with more than 70 interviews in August and September in Tanzania. Fifty-five percent of the interviews were with private companies, and 28 per cent with NGOs. Actors interviewed were from several sectors including WASH, agriculture, energy, conservation, information and communications technology, tourism, and bottling. Most interviewees came from WASH and agriculture sectors, with WASH constituting half of the interviews and agriculture another

17 percent. The broader WARIDI team formal prioritization exercise for these 13 opportunities was not completed in Q3 as scheduled and will now take place in Q4.

Based on this research and fieldwork, the RPA team identified 13 promising partnership opportunities from a total of more than 70 organizations assessed. The team has included its initial analysis and prioritization of these opportunities in its draft report. One of the opportunities arises from an unsolicited grant proposal concept that is discussed further in Task 3.2, and with which WARIDI had further discussions in Q3.

In addition to the partnership concepts, the RPA interviews and research uncovered several key insights:

- The Tanzanian private sector's interest, capacity, and incentives to address water issues through market-driven approaches are limited.
- Limited demand and the availability of adequate financing are critical challenges for providing safe water, proper sanitation, and hygiene.
- Application of optimal irrigation techniques by smallholder farmers may offer a significant opportunity for achieving several WARIDI objectives.
- WARIDI should leverage existing networks – including water coalitions and business associations – to ensure impact. These networks include a variety of actors such as NGOs, government, and the private sector working toward WASH and agriculture impact.

Task 3.0	Timing	Comments
Inputs		
Conduct 2-day Partnerships Training for WARIDI staff	Q1-Q2	This suite of focused activities is led by SSG home office STTA in conjunction with WARIDI technical staff.
Initial mapping of private sector partners and partnership concepts	Q1-Q2	
Work with WARIDI technical management to develop a Partnership Prioritization Scorecard	Q1-Q2	
Conduct RPA and company interviews	Q3	
Define and document partnership opportunities	Q3	
Conduct Prioritization Workshop	Q3	
Outputs		
Staff trained	Q2	
Initial list of mapped public-private partnerships concepts	Q2	
Partnership Prioritization Scorecard developed	Q2	
RPA report with 10-20 partnership opportunities	Q3	
Partnership Prioritization Workshop with WARIDI technical staff	Q3	

Task 3.1: Improve business development services (BDS) for small-scale WASH and MUS, small-scale agriculture product and service providers, focusing on women and youth owned BDS

A water sector market analysis study to scale up WASH, MUS, and small-scale agriculture products and services was completed in Q3. This assessment was linked to the two studies on water services and provision approaches and sanitation and hygiene presented under Section 2.2.

The Water sector market analysis study is an informational guide for different implementers (from the LGA level upwards) for different possible WASH products and services. The draft report concluded the following.

- The current state of private sector engagement in WASH in Tanzania is limited with few products, services and business models to large scale although there are promising pilot schemes. Constraints to private sector development include:

- policies are unclear and provide little incentive for private sector engagement,
- low demand for many products and services.
- poor supply of materials and low technical capacity of potential private sector operators.
- limited access to finance for both service providers and consumers.
- limited role of private sector in water and in sanitation.

- Sector opportunities and challenges: significant opportunities as well as challenges exist for private sector engagement by WARIDI. A large opportunity is the untapped market for water and sanitation services, but a large challenge is the work required to reach those markets through awareness raising for both the private sector and for consumers themselves.
- Private Sector for water services: provides information on water related products including different types of pumps, water filters, drilling, water testing kits, rainwater harvesting, groundwater recharge, storage tanks, drip irrigation and sack gardens. A standardized format compares criteria such as cost, installation, advantages, disadvantages and availability.
- Water services and business models: elements discussed include:
  - Pump for life: a pump insurance scheme currently being used by Maji Safi Afya Bora Ifakara where users pay a monthly fee to maintain/repair their pumps
  - Working on self-supply using a pilot approach being trialed by Southern Highlands Participatory Organisation
  - Production of Tembo water filters by a women's group in Ifakara.

- Private Sector for Sanitation services: discusses different products for sanitation services (in a standardized format for easy comparison) including: Tippy Taps, reusable Menstrual Hygiene Pads, VIP latrines, Pour flush latrines, Eco toilets, decentralized desludging technologies.
- Sanitation Services and Business models: includes different models such as Choo ChapChap and Sanitation as a business,
- Further tools for WASH services: Description of some Tools for WASH services implementation and some further examples from east/southern Africa.

Given the end of Year 1 completion of the WASH/private sector analysis and the delay in RPA completion (see Section3.0) to early Year 2, the strategic elements listed below were not completed during Year 1.

Task 3.1	Timing	Comments
Inputs		
Water sector market analysis to scale up WASH, MUS, and small-scale agriculture products and services	Q2	Staff and STTA
Identification and development of partnerships and private sector champions	Q2-3	Staff and STTA
Development of a strategy based on market analysis and RPA	Q3 – (Q4)	Staff; taking account of RPA, Task 3.0, into Year 2
Outputs		
Report on market analysis	Q3	
Agreements with chosen partners in place	Q3 on	
Strategy for small-scale WASH and MUS, small-scale agriculture product and service providers, focusing on women and youth	(Q4)	Completed early in Year 2

Task 3.2: Increase financing mechanisms for sustainable ecosystem management and use

WARIDI began assessing operational Payments for Ecosystem Services (PES) schemes in Tanzania during Year 1. Of particular interest in the IWRM context are schemes where land and water users upstream in a watershed improve their management practices in ways that improve water flow

regimes, quantity and/or quality downstream, such that the downstream users are willing to pay upstream "managers" for those improvements. WARIDI found only one operational scheme of this type in the country though several other attempts or formative studies are documented. The operational scheme involves the Umoja wa Wakulima Wahifadhi Mazingira Kihuhwi-Zigi and the Tanga urban WSSA. The latter has dedicated 100 Million Tanzania shillings over three years to support improved land and water resources management upstream in the Zigi and Kihuwhi Rivers. An earlier much cited PES scheme, the Equitable Payment for Watershed Services project in the Ruvu catchment showed some early successes, but the longer term funding needed to nurture such schemes was unavailable.

WARIDI also reviewed several carbon-credit PES schemes operational in Tanzania, though for those involving increase in tree biomass opportunity costs (from alternative use of labor and land) and transaction costs (meeting international monitoring standards) remain high compared to income because of the low "market price"[3] for carbon. Where such schemes, for example, improve watershed management through reforestation or reduce fuel wood use (such as by providing water purification that replaces boiling), they may provide WARIDI opportunities provided certain pre-conditions are met. Locally realized co-benefits such as improved agricultural production and access to improved natural resources are often more economically important than the payments per se, but the periodic injections of "cash" from the payer can be critical in ensuring that "payees" maintain their commitment.

USAID provided contacts with several organizations with potential for payment for environmental services schemes (water and carbon credits) within the basins who could be collaborators or possible WARIDI grantees. Opportunities will focus more particularly on WARIDI LGAs, as well as broader basin aspect. Among other critical elements of any PES scheme that WARIDI could support are:

- A "downstream payer(s)" with sufficient interest and resources to provide a large enough incentive over a long period (decades) for the "upstream" land/water/carbon service provider.
- A competent local organization that can develop and broker the payer/payee relationship and monitor and aggregate land holder contributions over numerous years (well beyond the life of WARIDI) as well as support capacity development of the payee groups, especially in cases where land or water management is vested in rural communities.
- A policy environment that is conducive to the specific PES envisaged.

Among the ideas forwarded by USAID, one is particularly attractive as an unsolicited grant concept opportunity for WARIDI. Kilombero Plantations Limited, a rice grower in the Kilombero Valley, has experienced reduced water flows in recent years. Although it uses water efficient drip irrigation, rather than flooded paddy, water remains a critical element in the rice scheme. Investors in the plantation have agreed to consider payments for 50 years to upstream villages for improved watershed management. The Tanzania Forest Conservation Group, a well-known NGO, is the "competent local organization" in the second element listed above. Although policy for PES is undeveloped, neither is there any impediment – and the concept is supported by the two LGAs involved (Kilolo upstream and Kilombero downstream) as well as by the Rufiji Basin Board – three of WARIDI's existing partners. Meetings were held with Kilombero Plantations and Tanzania Forest Conservation Group to get a better understanding of potential and to begin assessment for grant-readiness, as well as an invitation to update and elaborate the concept paper as a full proposal.

In addition to this opportunity already under consideration, the RPA (Section 3.0) identified three other PES schemes of possible interest to WARIDI (details are available in the draft RPA report):

1. A Water-Smart Agriculture and Irrigation partnership includes a possible add-on PES activity, involving a fund established by the Tanzania Electrical Supply Company that could be used to encourage smallholder farmers to engage in water-conserving practices or alternative livelihoods.

[3] The so-called carbon market price does not reflect the socio-environmental costs (an order of magnitude higher by most estimates) of carbon pollution.

2. A Payments for Carbon-Smart Water Treatment partnership, which involves a third-party system connecting large international firms seeking to offset their carbon emissions with communities using fuel wood to boiling water for safe drinking. Households in these communities would receive water filters to reduce their need for forest products, therefore reducing pressure on forests and maintaining a carbon sink.

3. A Payments for Sustainable Agriculture partnership that would engage farmers in water-smart agriculture practices in Morogoro. In return, they would gain access to a preferred market place, provided to them by the municipality that would benefit from the improved water quality and quantity associated with the shift in agricultural techniques.

Task 3.2	Timing	Comments
Inputs		
Identify promising options ecosystem service financing mechanism	Q2-3	Staff, STTA; RPA will contribute to options
Development of an ecosystem services strategy	(Year 2)	
Outputs		
Options and initial feasibility report	Q3	

Task 3.3: Increase alternative livelihood opportunities

Sustainable livelihoods initiatives need to be visible with tangible quick enough results to motivate communities and other actors to participate fully and commit their resources. In Year 1 WARIDI identified and conducted an analysis of potential livelihoods opportunities and how these might be improved as well as identifying new opportunities. Major criteria for analysis are quickly implementable activities, competitive advantages and women and youth participation

Several reviews were undertaken to identify opportunities including:

- Documentation from other projects including USAID Feed the Future projects.
- Success stories from iWASH and other potential like-minded environmental partners conducting appropriate livelihood interventions in the two basins.
- WARIDI rapid assessments on private sector engagement in WASH, Water Services Provision approaches, Sanitation and Hygiene approaches (Sub-task 1.1.2) and the Rapid Partnership Appraisal (Task 3.0).
- Field visits to relevant sites, institutions and projects.
- LGA profiles from the five selected Districts.
- Information from the Mikumi planning workshop.

Livelihoods were categorized in three categories discussed below, though overlaps are apparent.

<u>WASH-related livelihoods</u>

WARIDI identified sanitation enterprises ranging from solid waste management in peri-urban areas to rope pumps, drilling enterprises, sanitation and hygiene products, latrine construction using low cost techniques and pit emptying. Many of these opportunities have high potential for women and youth to participate in sanitation enterprises. Before promotion, upcoming market analysis will go deeper to look at demands per LGA, the nature of the product, business cycles and confirmation for the potential for youth and women to participate. Among the peri-urban potential for introduction of WASH businesses are Kilolo Town, Ruaha Mbuyuni, Ifunda in Iringa LGA, Mikumi in Kilosa and Turiani in Mvomero LGA.

<u>Land-based and agricultural livelihood activities</u>

WARIDI conducted desk review of relevant documents on livelihoods including from district profiles submitted during the application processes, field visits and consultation with organizations to identify land related and agriculture-based livelihoods that are appropriate in our focal areas. This exercise provided information and lessons to WARDI on how to promote its livelihoods activities. For

example, Heifer International began MUS work with iWash to raise livestock for improved household income by developing animal husbandry skills such as disease control and breeding, Heifer promoted indigenous chicken breeds, goats and pigs as productive livelihood entry points. Other field visits included organizations that support land use plans and conservation in Iringa and Morogoro, such as Eastern Arc Mountains Conservation Endowment Fund, provide useful lessons and capacity building approaches for small holders in soil and water conservation including farmer field schools to demonstrate the use of contour cultivation. Lessons from a Tanzania Forest Conservation Group study "Climate Smart Agricultural Options for Small-scale Farmers in the South Nguru Mountain Landscape" shows there is inadequate access to agricultural inputs, price information, and that poor roads, long distances to markets and inadequate cooperation among farmers are key barriers for many farmers.

Planning meeting with the five WARIDI districts demonstrated strong commitment to work with the project to mobilize youth and women's groups to participate and provide extension services such as improved farming techniques, business management skills linked existing LGA women and youth credit schemes.

The Mikumi Workshop helped gather useful information on existing opportunities and the gaps where WARIDI might help to build the capacity of LGAs and other organizations to promote promising livelihood options that increase household income, enhance food security and nutrition, and build climate resilience, while improving land and water management. The workshop generated potential livelihood opportunities that promote gender and youth engagement such as improved water use in agriculture including small-holder irrigation schemes, small livestock husbandry (including poultry) and non-timber forest products such as bee-keeping, as well as improved natural resources management livelihood improvement from agroforestry, improved cook stoves, ecotourism opportunities in and around protected areas and Wildlife Management Areas; and more resilient fisheries practices. "Quick-wins" were noted as important when attracting youth to such ventures.

In the first half of Year 2, WARIDI will conduct a market analysis in each LGA to identify the best potential livelihood opportunities from the land use options listed as well as water and sanitation products and services. This analysis will prioritize economically viable, scalable and climate-smart income-generating opportunities for women and youth that take account of other time consuming responsibilities of these groups.

Also in Q3, WARIDI participated with other Feed the Future partners in the Nane Nane agricultural show in Morogoro. This annual event provides outreach and demonstration to the region's population on agricultural and related livelihoods. Winrock led WARIDI's contribution based on its iWASH experience demonstrating rope pumps, water filters, small-scale irrigation drip kits, chicken brooders and sack gardens.

Task 3.3	Timing	Comments
Inputs		
Identify initial promising livelihood options	Q2-3	Staff
Integrate findings with other business and market related tasks	Q3 – (Q4)	Staff and STTA
Outputs		
Promising livelihood options identified		In conjunction with other Result 2 Tasks

2.5 INTERMEDIATE RESULT 4, CLIMATE CHANGE: STRENGTHENED COASTAL MANAGEMENT TO ADAPT TO CLIMATE CHANGE

The WARIDI Task Order Results Framework (Figure 1) has three sub-IRs for IR4:

Task 4.1: Studies and analysis to inform coastal climate change adaptation

- Studies and analysis to inform coastal climate change adaptation;
- Upstream interventions implemented to sustain downstream resiliency; and
- Rufiji and/or Wami –Ruvu delta coastal adaptation project implemented.

However, the Task Order narrative only references the first of these as a task, and has a specific deliverable and set of expected outputs for the study as noted under Task 4.1, below.

In Year 1, USAID/Tanzania, USAID's Africa Bureau Senior Climate Change Advisor and WARIDI worked together to refocus IR4 in two significant ways:

1. To remove IR4 as a separate Result by folding climate change adaptation activities into IR2 (IWRM Governance) and emphasizing institutional and governance issues related to adaptation rather than community livelihood aspects.
2. To broaden the coastal delta emphasis to a basin-wide perspective to better reflect institutional and governance needs with respect to resilience in water resources. Recognizing this change, the study timetable was also extended by 6 months through the end of Q4.

A Task Order modification is expected in Q4 to formalize these changes. In late Q2 the Africa Bureau advisor worked closely with WARIDI on drafting changes to the Task Order Statement of Work, and more particularly, repurposing the study to the basin-wide geography.

Prior to the changes noted above, significant literature review and analysis had begun on the coastal study, including a scoping visit to both basins in June. The latter served to emphasize the need to modify the study as explained above, recognizing that fresh water resources impacts at the coast are largely dependent on governance and management issues upstream. Coastal resilience is the theme of a major World Bank study released in Q2 and provides detailed information on adaptation needs and priority investments in coastal LGAs, thereby covering much of the material envisaged in the original WARIDI study.

In Q2, WARIDI produced a draft research design for the coastal study, which was modified for the revised focus in Q3. As part of that design effort, and as noted in Q1, WARIDI held discussions with Tetra Tech's sister USAID project, Planning for Resilience in East Africa Through Policy, Adaptation, Research, and Economic Development (PREPARED), about supporting the study especially through provision of climate change analyses and predictions using tools they have developed and applied in the region. As a result, WARIDI arranged a meeting in early July, which brought together MOWI, Tanzania Meteorological Authority, PREPARED and PREPARED's USAID regional collaborators based in Nairobi; FEWS NET, Regional Centre For Mapping Resource for Development and the Inter-Governmental Authority on Development Climate Predictions and Applications Center.

The meeting with Regional USAID partners, MOWI, Tanzanian Meteorological Authority (TMA), Basin Boards and WARIDI took place in Dar es Salaam with emphasis on improved analysis of climate trends and projections in the two Basins. FEWS Net demonstrated its systems for these analyses emphasizing the need for input of as much meteorological data as available, given the few stations contributing to the preliminary analysis. The Regional Centre for Mapping Resource For Development also demonstrated its vulnerability assessment tools using the Lake Victoria Basin as an example. An outcome of the meeting was commitment by the Tanzanian agencies to provide more data to improve trend analyses and predictions, which both the Basin Boards and TMA provided. The

improved analysis is expected to be presented in Q4, followed by completion of the vulnerability assessment report.

As part of re-design of the vulnerability assessment process for the revised basin-wide scope, a provisional theory of change for WARIDI's climate change adaptation activities was devised as follows.

> **IF** governance of water management is founded on effective hydrological data collection, processing and analysis using hydrological models and water allocations systems are based on understanding water needs and availability;
>
> **AND** environmental flow information is comprehensive, accurate and appropriately used during the water allocation and permitting process to protect ecosystem services;
>
> **AND** basin offices know how to effectively use climate change exposure and vulnerability tools to better understand and communicate climate risks to basin water users;
>
> **THEN** basin offices and water users will be able to implement Integrate Water Resource Management and Development Plans (IWRMD) which sustainably allocate and permit water based on availability with due consideration of climate change impacts and socioeconomic development on water availability and environmental flows.

The Task Table below is reproduced from the Work Plan for consistency in presentation, but the revised scope, schedule and progress are described above.

Task 4.1: Studies and analysis to inform coastal climate change adaptation	Timing	Comments
Inputs		
Information gathering	Q1 – Q2	STTA/Staff
Review of climate change knowledge base for the two basins	Q2	WARIDI Staff
Climate change assessment focused on the delta regions	Q2 - Q3	WARIDI Staff, STTA team
Workshop: Adaptation Study Assessment Review	Q4	Stakeholder consultation
Outputs		
Climate Change Adaption Assessment Study	Q4	USAID requires draft by July 4, to be finalized following consultative workshop in Q4.

2.6 CROSS-CUTTING AND INTEGRATIVE TASKS

2.6.1 GENDER AND YOUTH INTEGRATION

WARIDI staff recognize the critical importance that gender and youth integration plays in successful and sustainable WASH services, IWRM governance and planning, and climate change adaptation and we echo the emphasis that USAID/Tanzania places on female and youth empowerment in its current Country Development Cooperation Strategy.

Task 5.1: Conduct gender, youth and vulnerable populations' assessment

Task 5.2: Define and apply integration mechanisms and processes

These two tasks are presented together as they represent two stages in an integrated process.

A preliminary scoping by subcontractor Iris Group in Q2 finalized plans for the Gender and Youth assessment and allowed meetings with key informants including USAID's gender and youth program management specialist, as well as several NGOs and gender consultants, and the WARIDI team. The main activity, beginning in Q2 was the assessment and the output, the draft Gender Integration and

Youth Inclusion strategy in Q3. The assessment, as well as looking at national data and information from key informants, reviews more specific aspects with respect to Wami-Ruvu and Rufiji (where available) as well as linking findings to each WARIDI IR and Tasks in the Results Framework (Figure 1).

Overall, the assessment found strong consensus exists within Tanzania that "water is a women's issue." Consistent with global patterns, data reflect disproportionate burdens of water retrieval on Tanzanian women's and girls' labor and time, and the impact of improved access to water on their lives. Informants pointed to many promising programs and processes that support inclusion of women's and youth's priorities in MUS, WASH practices, and related livelihood and income-generating opportunities. Alongside this commitment, however, is a gap between recognizing water-related needs and rights of women and girls - and consistent, *explicit* approaches to operationalize these commitments fully in routine water-sector systems and daily community practices.

The emerging gender integration and youth inclusion strategy has five proposed elements, for which avenues for implementation are explored in the draft Year 2 Work Plan:

1. **Increase Access to Key Resources.** WARIDI will identify and integrate promising approaches to overcome barriers related to accessing key resources, including: sustainable, woman-friendly and youth-appealing MUS technologies; information and skills (to manage and maintain MUS, as well as to engage in livelihood and income generating opportunities); credit and financial services; control over productive assets, and viable BDS.
2. **Pilot Engagement of Communities to Rebalance Norms – related to decision-making and influence at governance, community and household levels.** Underlying cultural norms about women's and men's influence in decision-making limits inclusivity a range of key water-related outcomes including sustainable MUS design, improved WASH practices, alternative livelihoods and income generation. WARIDI will use participatory, community-led approaches that engage men and communities to re-consider and re-balance norms.
3. **Build on What Works.** WARIDI will seek to identify promising/successful practices; work to formalize, adapt, and pilot them in WARIDI activities; and then seek to further systematize identified best practices that promote gender integration and youth inclusion.
4. **Prioritize Locally-Rooted Capacity Building.** As WARIDI systematizes promising practices, it will strengthen capacity through horizontal approaches by identifying local experts, leaders and champions who are moving forward promising gender integration and youth inclusion approaches, and mentor others within WARIDI to expand their reach through training-of-trainers approaches. Study tours between institutions and communities for peer learning about promising approaches is part of this strategy.
5. **Integrate Gender and Youth Inclusion throughout project systems – with emphasis on documenting learning and harvesting results.** Concrete, strategic entry points to advance gender and youth issues will be formalized across project systems (including personnel, grants, capacity-building, and monitoring and evaluation). Priority will be given to developing systems to document, evaluate, and report successes and learnings.

A series of more specific actions are proposed in this draft strategy, linked to the WARIDI Task Order IRs and Tasks.

Throughout Year 1, the resident WARIDI team consulted with Iris Group on key aspects of the program to ensure proper integration of gender and youth issues during planning and development of key deliverables including the Year 1 and Year 2 Work Plans, and monitoring and evaluation. Iris Group also supported selection of the WARIDI Gender and Youth Advisor, who was selected in Q2 and joined the team in Q3.

The main activity was field work for the Gender Integration and Youth Inclusion Assessment and its subsequent translation into the implementation strategy described above. A three-person team from Iris Group worked with WARIDI in completing these steps in August and September. This "gender

and youth" team conducted interviews with 24 key informants from USAID, GoT institutions, international and national NGOs, Basin Boards and academic institutions. The team also attended, and led a participatory session at, the Mikumi Workshop with officials from the five WARIDI LGAs and the Basin Boards. While this workshop was important in developing the strategy, the verification workshop (Task 5.2) was postponed until Year 2. However, as planned WARIDI staff had a preliminary training, though more will follow in Year 2.

Task 5.1	Timing	Comments
Inputs		
Desk review of existing literature for gender and youth assessment related to WARIDI objectives	Q2	Staff and Iris Group STTA
Gender and youth assessment conducted	Q2-Q3	Staff and Iris Group STTA
Input from stakeholders, relevant NGOs and government institutions (key informant interviews, group discussions)	Q2-Q3	
Outputs		
Gender and Youth Assessment completed	Q3	

Task 5.2	Timing	Comments
Inputs		
Integration strategy development	Q2-Q3	Iris Group STTA, WARIDI staff
Workshop to verify strategy	Q3	
Integration strategy implemented	Q3	for life of project with updates
Outputs		
Gender Integration and Youth Inclusion Strategy produced	Q3	
WARIDI staff trained on gender and social inclusion, integration	Q3	

3.0 WARIDI ACTIVITY MANAGEMENT

3.1 MOBILIZATION, OFFICE ESTABLISHMENT AND OPERATIONS

The Q1 and Q2 reports, with monthly reports in-between, provide more detail on the initial logistical and bureaucratic challenges experienced. Delays in "identification" letters for Tetra Tech and subcontractors from USAID and in Tetra Tech's provision of corporate documentation for banking purposes, along with lengthy Tanzanian bureaucratic procedures severely hampered start-up, despite rapid mobilization within a week of the agreed effective date of the Task Order. Establishment of a corporate bank account in particular led to operational delays, most notably establishment of payroll systems enabling hiring of staff. When MOWI support was necessary, fast and effective assistance is gratefully acknowledged.

Overall, WARIDI was largely operational by mid-Q2, though two bureaucratic issues with GoT remain problematic: first, the Tanzania Revenue Authority in Iringa has ruled that the extensive paperwork provided does not allow for tax exemptions delaying procurements for the second office; second the immigration department in Morogoro will not accept the validity of business visas issued by the Tanzanian Embassy in Washington and has harassed several staff and consultants, despite these visas being recognized on entry at the airport in Dar es Salaam.

Nevertheless, by the end of Q2 the main office in Morogoro town, and the second office in Iringa town were staffed and fully operational

3.1.1 IMPLEMENTATION TEAM

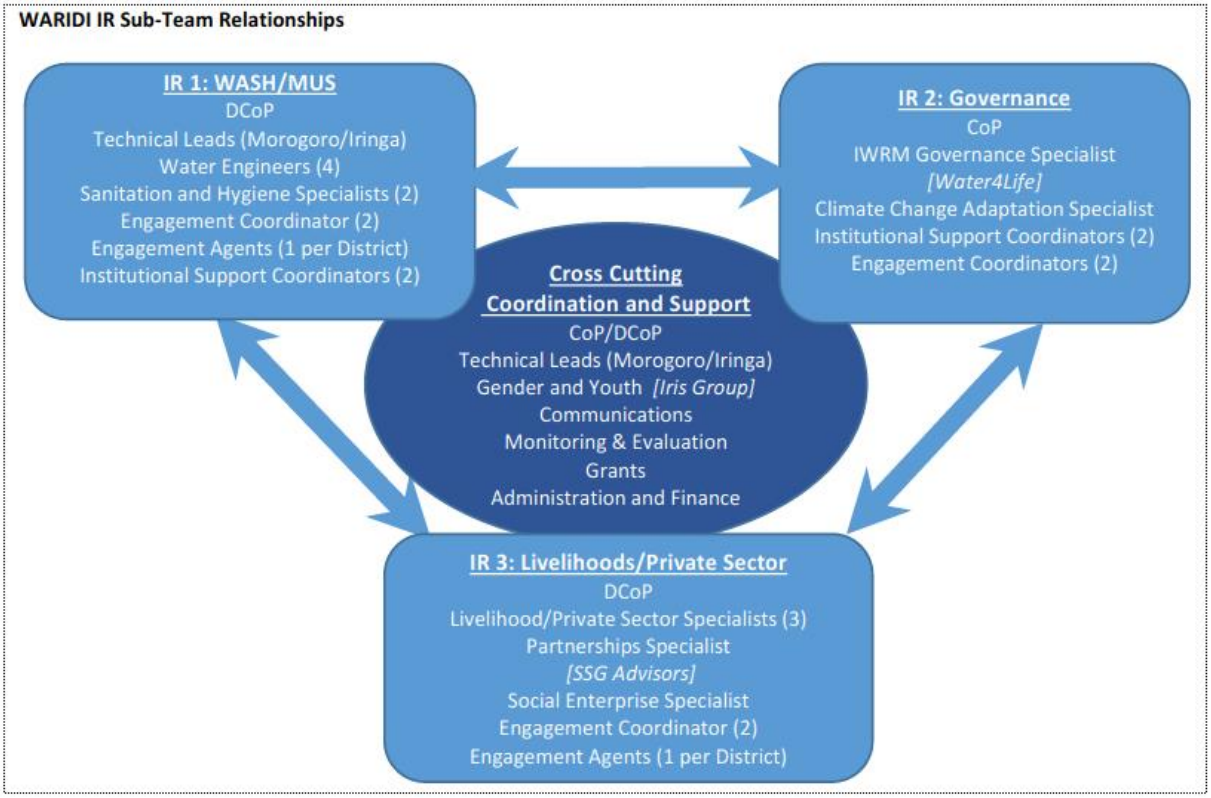
All key personnel (Tetra Tech ARD and Winrock International) from the WARIDI proposal were on board by the end of Q2 with three of the four operational early in Q1. By the end of Year 1, 37 staff were already on board (see Annex 2) and the selection process for five LGA-based Engagement Agents underway and expected to be operational by February 2017.

Team Integration and Internal Training

As team members were phased in, WARIDI provided induction training, both initially and from time to time afterwards, in WARIDI objectives and content, and on procedural matters related to their employment, both for Home Office and for USAID compliance. Although broadly similar, Tetra Tech and Winrock conducted their own procedural staff trainings in early May, whereas the conceptual and technical implementation sessions were given jointly to emphasize the one team approach. Two such "all-team" orientations were held, one in May and one in September.

As shown in the Annex 2 organogram, fulltime staff in Tanzania come from Tetra Tech, Winrock and SSG. From the first team meeting among sub-contractors in Washington, DC, in early January 2016, a "WARIDI one team" approach was emphasized to ensure effective integrated implementation, despite some differences in procedures and requirements from each home office. For example, Tetra Tech largely adopted and adapted staff terms and conditions from Winrock's longer experience in Tanzania to ensure that people working side by side had comparable working conditions and benefits. SSG followed a similar process when it later employed its two Tanzanian staff. Where individual sub-contractors are mentioned, this is to highlight their specific contributions or their leadership in specific elements, not to suggest that their activities are discrete and separate from the rest of the team.

Although following essential employer – employee reporting requirements, for programmatic work coordinating supervision and oversight often leads to, for example, a Winrock staff member taking implementation responsibility for a Tetra Tech employee as shown in Annex 2 and the right hand column in the Year 1 schedule (Annex 1). This aspect is further illustrated in the informal structure of IR sub-team as shown below, where the roles of other subcontractor (SSG, Iris Group, W4L) are also identified. The fluid nature of these sub-teams is demonstrated by the occurrence of several staff in more than one IR.



3.2 MONITORING AND EVALUATION

An internal first draft of WARIDI's Monitoring, Evaluation and Learning Plan (MELP) was developed in Q1, with the drafting process continuing throughout Q2 engaging Tetra Tech's Home Office Project Manager and MELP Specialist, and WARIDI senior staff, with input also from Iris Group on gender and youth aspects. During Q2 this process became more challenging as a result of USAID providing a new list of 15 required indicators for WARIDI to align with the Mission Country Development Cooperation Strategy. Eleven of these indicators do not align with the list of "expected results" listed in the Task Order. Nevertheless, the extant MELP draft was redrafted incorporating these new indicators was submitted for USAID review in July, following the agreed deadline of 15 days after approval of the First Annual Work Plan (see Section 3.4). Comments were not received in Year 1, but were provided early in Year 2.

At the beginning of Q3, a Tetra Tech home office Technology for Development specialist supported establishment of a mobile data collection platform, using our ePORT system. He set up 12 tablet computers and provided technical staff orientation and training in their use.

At the beginning of Q3 the WARIDI MELP Specialist and Grants Manager attended a USAID quarterly MELP meeting in Mbeya. Of value was an introduction for the Women Empowerment in Agriculture Index and Gender Integration Framework given the subsequent development of WARIDI's gender and youth strategy,

According to the draft MELP, no indicator targets were included for Year 1 and none were achieved, therefore. In summary, the schedule for the major quantitative indicators are as follows:

WARIDI Indicator	Y2	Y3	Y4	Y5	Total
# of people with increased access to improved water supply and sanitation	100,000	200,000	500,000	500,000	1.5M
# of people in open defecation free environments	200,000	800,000	1 million	1 million	3 million
# of institutions with improved capacity to address climate change	0	1	2	1	4
# stakeholders with improved capacity to address climate change	5,000	10,000	10,000	5,000	30,000
# WASH service providers with improved capacity/ finance	150	200	350	300	1,000
# PPPs established	1	2	2	1	6
# farmers applying new technologies	1,000	3,000	3,000	3,000	10,000

3.2.1 ENVIRONMENTAL MANAGEMENT AND COMPLIANCE

Tetra Tech and Winrock staff prepared two USAID environmental compliance documents:

- Draft Environmental Mitigation and Monitoring Plan, submitted to USAID at the end of Q2.
- Draft Water Quality Assurance Plan, submitted early in Q3.

Team training in compliance and data management was planned for Q3, but postponed pending approval of the draft plans. As of October 2016, no comments were provided.

3.3 GRANTS MANAGEMENT

A Draft Grants under Contract Management Plan was submitted in Q1. USAID comments were received and a revised version submitted for final approval early in Q2, which was approved at the end of May. Tetra Tech's home office grants, procurement and contract team, who prepared the draft manual, visited Tanzania and worked with the grants manager and finance and administration team on procedural compliance and provided training to all team members in Q2. No grants were issued in Year 1, though work began on preparing for two grant opportunities, discussed in Section 2; the KAP Survey (Section 2.1.3) and the Kilolo/Kilombero PES opportunity (Task 3.2). Other grant opportunities for Year 2 are expected to target WASH/MUS activities in WARIDI LGAs.

3.4 ACTIVITY TECHNICAL REPORTING

The Task Order describes the periodic deliverables required by the contractor, listed in the following table. As explained in Section 1, this Annual Report document combines the third quarterly report with the September 2016 monthly report into this First Annual Report.

DELIVERABLES/REPORTS	DELIVERY DATE
Annual Report*	Within 30 days after the end of each 12-month period of the Task Order.
Semi-Annual Report	Within 30 days after the end of each 6-month period of the Task Order.
Quarterly Report	Within 30 days after each March 15, June 15, September 15, and December 15 of the Task Order.
Final Report	Within 30 days after the completion of the Task Order.
Monthly Report	Within 30 days after the end of each month of the Task Order.
Annual Work Plan*	Within 30 calendar days after the post-award meeting between Tetra Tech and USAID on 27 January 2016. Subsequent Annual Work Plans within 30 calendar days after the beginning of each US Government Fiscal Year.

DELIVERABLES/REPORTS	DELIVERY DATE
Monitoring Evaluation and Learning Plan* (see Section 3.3)	Within 15 days after approval of the First Annual Work Plan.
Grants under Contract Manual* (see Section 3.4)	Within 60 days after contract effective date. The Task Order Contract Officer and Contract Officers Representative (COR) will provide comments back within 30 days. GUC manual will be approved 120 days after contract effective date.
Climate Change adaptation study of the Rufiji and Wami-Ruvu deltas*	Draft report of the study within 180 days after contract effective date. The TO COR will provide comments back within 30 days. The final study will be approved within 240 days after Contract effective date.

* These dates reflect agreed modifications at the post-award meeting and will be incorporated into a Task Order modification

The Task Order further notes that Annual, Semi-annual, Quarterly and/or Monthly report submittals may be combined with written concurrence of from the Contract Officers Representative (COR).

The draft First Annual Work Plan and other deliverables listed were all submitted according to schedule. The First Work Plan was approved by USAID in July and the two Quarterly Reports (the second combined with the Semi-annual Report) and intervening monthly reports were approved in September.

3.5 FORMAL COLLABORATIVE MECHANISMS

In addition to Activity-specific partnerships elaborated in IR3, WARIDI participated in several higher level forums and collaborative mechanisms.

In the Water Sector, WARIDI participated, when possible with respect to other priorities (given that meetings are held in Dar es Salaam), in the relevant quarterly Technical Working Groups (water resources, urban water supply, rural water supply and sanitation and hygiene) as well as the climate change forum organized by MOWI and Joint Supervision Missions for the national Water Sector Development Program whenever possible. In addition, at USAID's request, WARIDI attended the equivalent meetings of the water sector Development Partners Group when possible. These forums are useful for information exchange and learning of new developments in the sector.

In 2016, USAID launched the Iringa Hub activity to promote collaboration between eight projects operating in Kilolo LGA and the LGA (see Section 2.1.1). In addition to any specific task-related collaborative opportunities that may arise, USAID holds quarterly meetings in Iringa Region of the collaborators. WARIDI participated in both the inaugural meeting in Q2 and the second meeting in Q3.

4.0 RETROSPECT AND PROSPECT

Although this Year 1 Report is mainly directed towards an account of progress relative to the first annual Work Plan (Section 2), the intersection between program years is a good time to reflect on what was learned from a broader perspective, and what are implications for Year 2.

Given the short duration of Year 1 (nine months, including mobilization and start-up) and time needed for establishing operations (see Section 3), WARIDI made substantial progress during the period, though did not meet all Work Plan expected outputs during the period as explained for each Task in Section 2. Nevertheless, all Task Order deliverables due during the period were sent to USAID for review and approval.

Year 1's main successes were in laying operational foundations for sustained operations in three respects:

- Establishing of administrative and financial systems and two offices compliant with GoT legal and regulatory norms, and USAID and Home Offices (Tetra Tech and sub-contractors) requirements, predominantly in Q1, but also well into Q2.
- Instilling a "one team" approach across all aspects – employees (from three organizations) in the two offices and the four subcontractor home offices. The integrated nature of technical implementation requires seamless collegial work in which some Tetra Tech staff are supervised for day-to-day operations by Winrock staff and vice versa, whilst maintaining a proper system of specific employer – employee human resource supervision system.
- Establishing good relationships and operational modalities with key partners, especially with MOWI, two Basin Boards, two Regional Administrations and five LGAs that will enable rapid expansion of on-the-ground activities in Year 2.

The process of LGA engagement, in particular, while time-consuming and deliberative has led to demand-driven selection of enthusiastic LGAs with endorsement of their leadership as well as Regional Administrations. The Year 1 experience will enable a streamlined engagement system in Year 2, but one in which we will maintain the essential ownership by LGA government and individual technical officers in which WARIDI is supporting implementation of their priorities.

A critical question for Year 2, after selection of the next seven LGAs in Q5, is how best to move towards the 20 LGAs anticipated in the Task Order later in the year. Clearly, WARIDI resources will not allow equal levels of engagement with 20 LGAs, while at the same time moving towards the large WASH targets. Funding "per LGA" and WARIDI human resources are far too small and spread out geographically to allocate proportionately across all LGAs. WARIDI has, therefore, built a review of this aspect into the draft Year 2 Work Plan, which will need USAID participation to reach final conclusions.

All WARIDI's USAID funds come from earmarks, as explained in Section 1. These earmarks have guiding documents or project specific arrangements (as for example that with Climate Change Adaptation and WARIDI, as described in Section 2.5), which limit how these funds can be used, some more limiting or more strictly applied than others. Earmark requirements and their interpretations sometimes limit flexibility of integrated programs such as WARIDI, or may lead to issues arising as programs (or earmark requirements or their program-specific allocations) change during implementation. These dynamics have the potential to raise questions about earmark allocations and

use from USAID/Washington or during program evaluations. For example, as this report was finalized, USAID/Tanzania was in the process of removing biodiversity earmark funds from WARIDI's current obligation and adding climate change adaptation funding to compensate. Managing such changes from program implementation and reporting requirements will require review of earmark requirements and dialogue with USAID to ensure that earmark compliance remains in place, while meeting WARIDI's objectives.

Although WARIDI's financial "burn rate" seems low compared to the total award of $48.8 million, it markedly increased from Q1 ($405,000) to Q3 ($1.25 million). The start-up administrative travails described above contributed to lower than expected expenditures, but also the programmatic approach of LGA engagement (and other stakeholders) and necessary assessments to optimize interventions make lower initial expenditures inevitable during these early stages. During Year 2, burn rate will increase markedly as on-the-ground activities in WASH and livelihoods increase in selected communities, along with issuance of the first grants.

ANNEX 1: WARIDI FIRST WORK PLAN SCHEDULE

Summary, schedule and responsibilities for Work Plan implementation. Abbreviations not used earlier are: COP = Chief of Party; DCOP is Deputy Chief of Party.

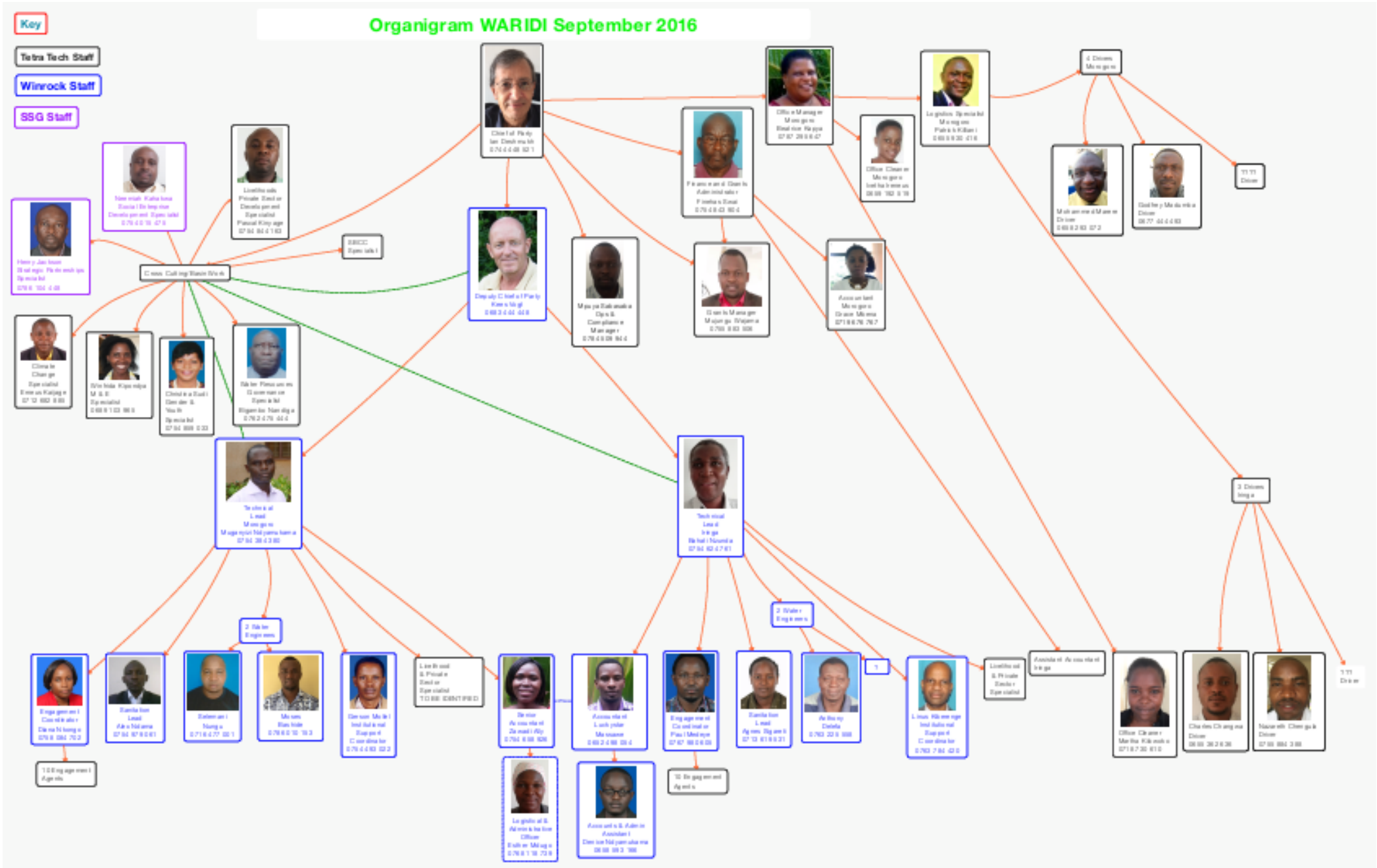
Activity	Q1			Q2			Q3			Responsible Lead/others
Deliverable	J	F	M	A	M	J	J	A	S	
IR 1: Increased utilization of sustainable multiple-use water and sanitation services										
Task 1.1: Access to MUS in WASH										**DCOP**/WASH Team
Create demand/buy-in from LGAs										
Initial LGAs self-selected						X				
Market analysis for WASH										
Market analysis report							X			
Develop self-supply strategy										
Strategy drafted							X			
Develop WSSA strategy										
Strategy drafted								X		
Task 1.2: SBCC										**DCOP**/WASH Team
Research on Sanitation and Hygiene Practices										
Report on practices							X			
Development of SBCC strategy										
SBCC strategy documented								X		
SBCC materials deployed in LGAs										
Task 1.3: Financing options										**DCOP**/WASH Team
Initiate landscape assessment										SSG in collaboration with WASH Team
(Assessment completed Q4)										
Linking WASH and farmers to finance options										**DCOP**/WASH Team
(continues into Year 2										
IR 2: Governance: strengthened governance for sustainable and resilient management of water resources and services										
Task 2.1: Strengthen governance institutions										**COP/**Governance Team
Facilitated dialogues with RBOs										
Capacity baseline, priorities, near-term plan						X				
Activities from plan underway										
Task 2.2: Improve data for decision-making										**COP/**Governance Team/W4L
RBO data assessment										
Data assessment recommendations								X		

Activity	Q1			Q2			Q3			Responsible Lead/others
Deliverable	J	F	M	A	M	J	J	A	S	
Workshop on data needs/roles/responsibilities										
Workshop outcomes									X	
Task 2.3: Integrated water/land management										**COP/**Governance Team
Review of relevant existing/prospective plans										
Stakeholder workshop on plan integration								X		
IR 3: Private sector: Increased livelihoods through private sector investment opportunities for sustainable water services and water resource management										
Task 3.0 Partnership Development										**SSG STTA/**Finance & livelihood team
Partnership training for staff										
Trained staff				X						
Private sector partner mapping and concepts										
Map and concepts drafted					X					
RPA and company interviews										
RPA report								X		
Development of prioritization scorecard										
Scorecard drafted					X					
Prioritization workshop with staff							X			
Task 3.1: Improve BDS for WASH and MUS										**DCOP/**WASH Team
Market analysis to scale up linked to IR1.1										
Market analysis drafted						X				
Identify private sector partnerships										
First partnerships agreed						X				
Task 3.2: Ecosystem financing mechanisms										**COP/**WASH Team, SSG, Livelihoods
Identify options for financing mechanisms										
Report on financing mechanisms drafted									X	
Task 3.3: Alternative livelihood opportunities										**Livelihood Specialist/**DCOP/Partnerships
Identify promising livelihood options										
Options and feasibility report								X		

Activity	Q1			Q2			Q3			Responsible Lead/others
Deliverable	J	F	M	A	M	J	J	A	S	
IR 4: Strengthened coastal management to adapt to climate change										
Task 4.1: Study on climate adaptation in the two basins										**Climate Change Adaptation Specialist/**STTA/ PREPARED/COP/W4L
Information gathering										
Climate change assessment of two basins										
Round-table meeting of collaborators							X			
Analyses and options (Q4)								**(Year 2)**		
Verification workshop (Q4)								**(Year 2)**		
Assessment study drafted (Q4)								**(Year 2)**		
Cross-cutting and integrative tasks										
Task 5.1: Gender and youth assessment										**Iris Group/**Gender & Youth Specialist/CoP
Desk review of issues related to WARIDI										
Assessment conducted										
Stakeholder inputs										
Assessment report drafted									X	
Task 5.2: Apply integration mechanisms										
Integration strategy developed										
Integration strategy documented									X	
Integration strategy implemented (throughout)										Onward throughout WARIDI
WARIDI staff trained									X	
Activity Management										
Task Order signature (December 2016)										Tetra Tech/USAID
Task Order Effective Date										10 December 2015
Mobilization	X									**CoP/WARIDI Start-up team**
Initial Procurement										**CoP**/WARIDI Start-up team
Staff identification and hiring										**CoP**/WARIDI Start-up team (phased in as needed)
Annual Work Plans (*X is draft*)		*X*								**CoP**/team
First annual stakeholder workshop		X								**CoP**/team
Monthly Reports		X	X		X	X		X	X	**CoP**/team
Quarterly Reports Due				X			X			**CoP**/team
Semi-annual Report										**CoP**/team
Annual Report (due in Year 2, October 2017)										**CoP**/team

Activity	Q1			Q2			Q3			Responsible Lead/others
Deliverable	J	F	M	A	M	J	J	A	S	
M&E Plan	*14 work-days after Work Plan approval*									**CoP**/M&E Specialists
Grants Under Contract manual *(X is draft)*			*X*		X					**CoP**/Home Office Grants Specialist

ANNEX 2: STAFFING CONFIGURATION


Key
Tetra Tech Staff
Winrock Staff
SSG Staff
Organigram WARIDI September 2016

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